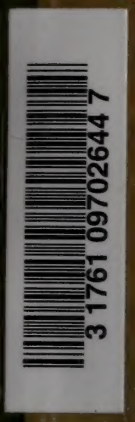
EDUCATIONAL PROBLEM SERIES EDITED BY G. M. WHIPPLE



No. 1

PROBLEMS IN EDUCATIONAL PSYCHOLOGY

Eighty Exercises Designed to Supply Students of Education and Teachers in Training with Material for Written Reports and Classroom Discussion

By

GUY MONTROSE WHIPPLE, Ph.D.

Professor of Experimental Education, School of Education
University of Michigan

Author of "A Manual of Mental and Physical Tests," "Questions in General and Educational Psychology," "How to Study Effectively," "Classes for Gifted Children," etc.

PUBLIC SCHOOL PUBLISHING COMPANY
BLOOMINGTON, ILLINOIS

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OF EDUCATION

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16.1.24.

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Second Revised Edition, 1923

PUBLIC SCHOOL PUBLISHING COMPANY
BLOOMINGTON, ILLINOIS

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EDITOR'S PREFACE

Those charged with the training of students to enter various professions have felt the need of developing plans for bridging the gap between theory and practice. One plan has been to exercise students in the solution of typical problems taken from actual practice. The use of the 'case-method,' as is done in the best law schools, in the training of lawyers, is a striking illustration of what may be accomplished by such a plan. In fact, many, if not most, of the facts and principles of law are learned by thus studying actual cases. In the same way 'terrain-exercises,' 'map-exercises,' or 'tactical walks,' have been used for years in the army to train officers in putting into operation the principles of military strategy.

The exercise-books in this "Educational Problem Series" by analogy, might be called "case-books," or "pedagogical terrain-exercise books," or "problem-books;" some might prefer to call them "project-books" or "project-problem books." By whatever name they may be called, they are designed to bridge the gap between theory and practice in the field of education. Of the existence of this gap there can be no question. Prospective teachers in normal schools and colleges of education devote time and energy to the mastering of texts in psychology and education, and many teachers in service cheerfully undertake extension courses, summer school and reading circle work for the purpose of extending their knowledge of educational theory, yet too often this hard-earned theoretical knowledge seems not to be applied to classroom practice. Not always because the theory is not understood; even good students, whose knowledge of textbook material is satisfactory when tested by ordinary recitations and examinations, may fail to make use of this material later on in their work as teachers or school administrators. This "Educational Problem Series" undertakes to supply one remedy for this failure by affording practice in applying at the very time that the knowledge is being acquired. Each problem embodies a situation that might readily arise in educational work —most of them, in fact, actually have arisen in the experience of the compilers. If the student can use his knowledge skillfully in solving these printed problems, the chances are greatly increased that he can—and what is equally important, that he will—use this knowledge later in solving actual problems as they arise.

The method by which the books are used will vary with the need of the instructor. They have been prepared with no single textbook in mind; on the contrary, they will be most successful if the student has access to a number of texts. It follows that the order of presentation of the problems will differ with the order of development of topics preferred by the instructor or textbook writer; moreover, it is not likely that all of the problems will be used. The books are intentionally constructed in such a way that the student may detach any problem as it is assigned, and each sheet is punched for convenient filing in a standard notebook cover.

Perhaps the most obvious method of using the problems is for the instructor, after the class has covered a given topic in the course, to assign by number those problems that demand knowledge of that particular subject matter for their solution. It is recommended that, after written replies to a given problem have been received from all members of the class, these replies be turned over to a 'committee' of two or three students, who will prepare for the instructor a summary of them, in which there is brought out the different conclusions, or solutions, proposed by members of the class, excerpts or quotations from striking or particularly well-organized papers, criticism of erroneous or inadequate solutions, a list of all references cited, and perhaps estimates of the merit of the replies—as superior, average or inferior.

Another method is for the instructor to assign certain problems to be submitted (or at least for oral replies to be attempted) in advance of the study of a given topic. Naturally, the replies will then be inadequate, but the issues presented will afford an excellent incentive for study of the textbook or perhaps for the presentation of special lectures by the instructor or special reports by committees of students. After this study of the textbook material, the same problems may be taken up again for final and authoritative answering.

Users of the first book issued in this series have been unanimous in reporting favorably upon its value in stimulating class discussion and in adding a new incentive to the study of the textbook. It is confidently expected, therefore, that the publication of a series of books of the same type will meet a similar cordial response.

G. M. W.

AUTHOR'S INTRODUCTION TO THE SECOND EDITION

Educational psychology has been for long a stock feature of the training of prospective teachers, but there has long been complaint that its subject matter fails to 'carry over.' The student is not entirely to blame for this failure. Despite the fact that courses in educational psychology in colleges and normal schools almost always follow prerequisite courses in general elementary psychology, the texts available for use in educational psychology seem often to be concerned with the further development of the facts and principles of general psychology or, if they do seek to present primarily subject matter that is pertinent to educational problems, they fail to supply any systematic plan for compelling the student to exercise this subject matter in the solution of real problems. It is precisely this situation that these "Problems in Educational Psychology" seek to remedy. Each problem embodies a situation that has actually arisen in educational work. These situations are of various sorts; some concern problems in administration; some, problems in classroom method; some, problems in curriculum-making; some, problems in discipline, and so forth; but they are all alike in that they demand for their solution reference to educational psychology. The purpose of this book is, then, to train students of education to think in psychological terms about educational situations.

Superintendents and principals will find among the problems many that are so typical of actual situations arising in their own schools that the set may profitably be used as material for discussion in round-tables of supervisors and principals and in general teachers' meetings.

Advantage has been taken of the need for reprinting to make certain improvements in this second edition. The order of the problems has been rearranged to bring related problems more nearly into juxtaposition. Each problem has been supplied with a convenient descriptive title and the make-up of the printed page has been altered by shortening the length of line. An index has been supplied, and numerous special references have been added.

I shall be pleased to correspond with users of the book, to assist any who encounter difficulties, and to receive suggestions for further improvement. My thanks are extended to the many helpful suggestions as well as favorable comments that the publication of the first edition called forth.

Guy M. Whipple

SUGGESTIONS TO THE STUDENT FOR HANDLING THE PROBLEMS

The purpose in assigning the written exercises in this book is to train you in using the knowledge gained from your textbooks, lectures, and class discussions in solving real educational problems. Every problem in this book presents a bona-fide situation, one that has actually arisen in educational practice, even though in some cases the details have been somewhat altered for the sake of presenting the theoretical issue with greater clarity and simplicity. Relatively little advantage will accrue to you if you merely read the problem hurriedly and dash off your personal opinion. The more painstaking your work, the more gain you will yourself receive in training for the profession of teaching.

In general, your procedure should be as follows:

1. Read the problem carefully. Analyze it so that you get clearly in mind the questions at issue.
2. Make a memorandum of the facts and principles that you need to know in order to solve the problem.
3. Consult the textbooks, bulletins, and periodicals that will supply the facts and principles that you need.
4. Confer freely with other members of your class, but do not allow your associates to dictate your own answers. Make up your own mind; formulate your own argument; give your own references; be prepared to defend your position.
5. In writing your report be definite and specific. Number all points. Cite the references consulted. If quotations are made, cite author, title, and page. Make your report a finished product from the standpoint of composition.

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Name..... Date.....

PROBLEM 1

Means of Developing a Superior Nation

In the smoking compartment of a Pullman car three men fell to discussing the Smith-Towner bill, which provided, among other things, for the expenditure by the federal government of a considerable sum of money for the subsidizing of education throughout the nation.

A. was thoroughly in favor of such a measure. He declared that the United States had become a vast 'melting pot;' that immigration had filled the country with foreign-born stock, ignorant of our language and our ideals and too often of an inferior grade of mental ability; that the public schools were the one and only means of training all citizens to use a common language, to cherish a common ideal, and the one means of lifting inferior ability to superior ability and thus developing a nation superior to any other on earth. Hence no subsidy was too great for such a task.

B. admitted that the United States had within its borders too many persons who were poorly informed, poorly trained, and of low-grade ability, and cited the results of the intelligence tests in the United States Army as proof of the astonishing amount of illiteracy and the apparently low general level of intelligence among our citizens. He contended, however, that education could do little to improve this situation; that good schools could not make stupid children into efficient men and women; that what ought to be done was to pass stringent laws against the marriage of the unfit and to spend money to subsidize and encourage the birth of the better elements of the population, saying: "Get enough good children born and they will educate themselves if they are given even half a chance. Our present schools are good enough if we could have them filled with boys and girls of real ability."

C. took a ground somewhat between that of A. and that of B. He admitted that good schools couldn't make efficient citizens out of dull and feeble-minded children, but yet contended that the best possible schooling out to be provided for them to make what we could from them, and that the other children, especially the gifted ones, needed even more the opportunity to secure the best training that public funds could buy. He admitted that education couldn't turn inferior into superior ability, but declared that education could and did supply information and develop ideals. He cited Germany as an example of a nation that had succeeded by persistent teaching in developing in its citizens a certain ideal (mistaken though it was) of the place of the German Empire in the world of international affairs, and said we ought to take the lesson to heart and seek by education to develop proper ideas and ideals in the great body of citizens of the United States.

Which position, that of A. or of B. or of C., is justified, and why? If none of these, what position would be justified and why?

(Use the reverse side of the page if necessary.)

Name..... Date.....

PROBLEM 2

Investigating Children for Adoption

Mr. and Mrs. D. are a well-to-do, but childless couple who have resolved to adopt a boy or a girl about five or six years old. They live in a community where a considerable number of children are available for adoption, and where there are unusual opportunities to secure fairly detailed information concerning these children. They are willing to spend time and money to secure a child that will not disappoint them, but they are somewhat apprehensive lest in the years to come, when it will be too late to rectify the mistake, the adopted child will turn out to be inferior physically, mentally, or morally.

Make a list of the traits, or qualities, that Mr. and Mrs. D. might well keep in mind in their search for a child, and state with respect to each of these traits how they might go about it, if they could at all, to be sure that the child selected possessed these traits.

Name..... Date.....

PROBLEM 3

Prenatal Influence

A woman who signs herself P. K. S. submitted to Dr. Evans, of the Chicago *Tribune*, three queries or statements, to which he replied in his column thus:

1. P. K. S.: "Will the actions of an expectant mother have any effect upon the future mentality or physique of the child in after years?"

Dr. Evans: "Everything in her prior life making for character and mental and social qualities is in some measure passed on to her child. However, during pregnancy the developing child is well shielded from physical and mental influences. Inheritance is all-powerful. The influence of environment is slight."

2. P. K. S.: "I have an aunt who worried and fretted in making her future baby's clothes, especially the tucks. When the child became 5 to 9 years of age, she would invariably raise her dress and finger the tucks."

Dr. Evans: "This aunt doubtless showed the same quality of mind when, as a child, she made baby dresses, and doubtless she continued it through her childhood, youth, and middle age. That's where her child got it."

3. P. K. S.: "If an expectant mother attends musicales and lectures or reads with the aim of having her offspring become accomplished in music, oratory or other knowledge, will such actions bear fruit in the unborn child?"

Dr. Evans: "If she starts this in youth and keeps it up persistently, the influence of heredity would operate. If her mother had the same quality, the influence of heredity would be far greater."

Comment on each of these three replies. Are they consistent? Do they state clearly the present opinion of biologists and psychologists concerning the inheritance of innate and acquired traits and the operation of prenatal influence?

Consult M. F. Guyer. *Being Well-Born.* Indianapolis, 1916. Ch. vi.

Name..... Date.....

PROBLEM 4

Family Traits and Marriage

In a certain small town there lived a well-to-do and prominent family of undeniably superior intelligence. The son was noted for his brilliant career in college and for the success he was achieving early in his subsequent business career.

The son became enamored of a young woman who had graduated from the local high school with the rank of two in a senior class of fifty, the same school from which an older brother and sister had also graduated with good, though perhaps not brilliant, records. The young woman in question was always neatly, though simply dressed. She attended church and Sunday school regularly, where she taught a class of small children with success. She participated in the social affairs of this church, but was seldom invited to the gatherings of the social group in the town in which the young man moved, for, though her family was respected, her father did manual work in a tannery, and her grandfather, her great-grandfather, and many of their descendants had also worked in tanneries and had never risen to positions of high responsibility or to ownership in these concerns. There was no trace of disease or ill health anywhere in her family.

The parents of the young man objected decidedly to the contemplated marriage, though not in any spirit of snobbishness. They felt that, while the young woman was physically sound, morally upright, and intellectually competent, nevertheless, her ancestors and relatives, at least on the paternal side, had shown little evidence of ambition, initiative or conspicuous ability that could match that displayed by their own family, and they argued that this marriage jeopardized their family's future.

1. Were the young man's parents justified in their attitude?

2. On what grounds do you base your answer?

Name..... Date.....

PROBLEM 5

Inheritance of Speech and Language

Several students in the senior class of a high school, who were finishing their second year of French, were discussing with their teacher the value of the course.

John P. had visited France during the preceding summer and found to his dismay that he couldn't understand much of the French spoken by the Parisians and that they couldn't understand much of the French spoken by him. His conclusion was, as he expressed it: "If you want to speak French right, you've got to be born a Frenchman. Their tongues and throats are made different from ours. A Frenchman, I believe, inherits a French kind of vocal apparatus, just as a German inherits a German kind and we inherit an English kind."

Frieda K., another student, interrupted him to say: "Well, in that case, just tell me how I can speak English as well as you can. My father and my mother were Germans, but I was born and brought up in this country, and I can speak either language as well as any native."

Mabel S., who was doing unusually good work in the French class, agreed with her in part. "I don't believe," she said, "that children are born with a tendency in them to speak any one language. But when they are little, they pick up by imitation the language they happen to hear around them. Only they couldn't do this when they were older. Frieda couldn't speak English as she does if her father and mother had brought her to the United States when she was ten or twelve years old."

Miss E., the French teacher, then declared that in her opinion it might be true that different persons were born with differently formed teeth, lips, throats, and vocal cords, just as some persons are 'born' singers and others are not. "But I am sure," she continued, "that if I could only have enough time with any one of you students, and if you would only try hard enough, I could teach you to speak French so perfectly that any Frenchman would take you for a native."

1. Do we inherit a tendency to speak the language of our parents?

2. Do different nations or different races display characteristic differences in the construction of the organs of speech? If they do, can training completely overcome these differences?

(Use the reverse side of the page if necessary.)

Name..... Date.....

PROBLEM 6

Heredity and Morality

At the meeting of a County Teachers' Association in a certain middle-western state a woman who represented the State Department of Public Health delivered a most impassioned address upon the general theme of moral training in the public schools. The most vigorous applause greeted that section of her talk in which she put forth substantially the following plea:

"There have been some misguided attempts by persons who masquerade as scientists to convince us that the lives we live have no effect upon our posterity. This is one of the most false and pernicious doctrines that has ever been foisted upon an unthinking populace. The truth is exactly the reverse. You teachers are recreant to the trust imposed upon you if you do not at all times teach your pupils that every act of their existence, every thought, even every secret thought, of their lives makes its ineradicable impression upon those wonderful cells that transmit our personality to the generation that is to follow us. If this were not so, the striking progress of the human race from savagery to civilization would have been impossible and unthinkable."

1. Do you agree wholly or in part with the statements of this speaker? If not, why not?

2. If her contention be unsound, what sanctions for wholesome living might be substituted for those she urged?

Name..... Date.....

PROBLEM 7

The Distribution of Ability

In 1918 an eighth-grade teacher had a class of 36 pupils. In 1917 the same teacher had an eighth-grade class of 40 pupils. In her work with the 1918 class not a day went by that she did not speak to them of their inferiority to the preceding class. Thus, she was accustomed to say that the class of 1917 had really done the best work she had ever witnessed in all subjects, and, in assigning a lesson, she commonly remarked that, were she assigning a lesson to last year's class, she would make the assignment much longer and would obtain better results into the bargain. She defended her procedure on the ground that she aimed thereby to engender a spirit of emulation in the class of 1918.

1. Is it *probable* that the classes of 1917 and 1918 differed as markedly as the teacher represented? Justify your answer.

2. Is it *possible* that the two classes differed as markedly as the teacher represented? Justify your answer.

3. By what practical method or methods might this teacher have discovered the actual amount of difference in the ability or in the school efficiency of the two classes?

4. If the class of 1918 were proved actually to be noticeably inferior in ability to the class of 1917, ought the teacher to have demanded or to have expected equally good school work from it?

5. Is the method employed by this teacher to stimulate the work defensible;
   (a) If the two classes really were of equal ability?

   (b) If the class of 1918 were really inferior to the class of 1917?

Name..... Date.....

PROBLEM 8

Classes for Subnormal Children

The school system in R., a city with a population of 30,000, had been run upon very conservative lines. When Mr. N. undertook the superintendency, one of his first acts was to request the Board of Education to authorize the establishment of two special classes for subnormal pupils. In the discussion that followed Mr. Q., one of the older and more influential Board members, and a banker of considerable reputation, protested vigorously against this innovation. He advanced among others, the following arguments:

1. "There may be children in the State Institution for the Feeble-Minded that can be called subnormal and that need special care, but there are none in the city of R.

2. "Even if there were any such children, no one, unless it might be an expensive medical expert, would know how to find them and study their cases as they should be studied, and this the city could not afford.

3. "Even if an expert were hired at considerable expense to find and study these cases, what they would need would be proper medical attention, and that is not the business of the public schools but of the proper medical authorities attached to the State Board of Health and the State Institutions for the Care of the Feeble-Minded.

4. "It would be nothing short of criminal to try to find mentally defective children among those in the public schools, and especially to brand them as defective by putting them together in a group that everyone would recognize. You might as well buy a set of dunce caps for them at the outset.

5. "To remove from the regular classes in the schools children alleged to be mentally defective would take from the regular classroom teachers just the children they are being paid to educate where they are. Bright and average children get along anyway, and it is the particular business of the classroom teacher to devote her best energies to teaching these pupils that you declare are defective or stupid."

Comment on each of these five lines of argument.

Consult (1) H. H. Goddard. *School Training of Defective Children.* Yonkers, N. Y., 1914.
(2) Leta Hollingworth. *The Psychology of Subnormal Children.* New York, 1920. Especially Ch. xv.
(3) L. M. Terman. *The Intelligence of School Children.* Boston, 1919. Especially Ch. viii.

Name..... Date.....

PROBLEM 9

Classes for Gifted Children

In the same city of R. mentioned in Problem 8, Supt. N., a year later, appeared once more before his Board and said: "Last year you authorized the establishment of two classes for subnormal pupils. These are in successful operation and another is planned. I now want you to authorize the establishment of two classes for gifted children." The same Mr. Q. attacked this proposal, advancing such arguments as the following:

1. "You have convinced me that the special classes we voted for subnormal pupils are operating successfully, but you certainly have no evidence that R. has any number of pupils who are sufficiently superior to ordinary pupils to warrant special provision for them.

2. "Of course, we all admit that some men become leaders and are far superior to other men in achievement, but there is no way to tell which of our boys will become superior men until they have left the schools and taken their place in our daily life.

3. "If you argue that some pupils in the schools are noticeably brighter than others, then let me tell you that these are just the ones that ought be held back. You couldn't do anything worse for such children than to force them in their studies.

4. "Besides, it is certainly contrary to the whole spirit of our public schools to exalt a few at the expense of others. I can't think of anything more undemocratic than to provide a special room and a specially fine teacher for those who are supposed to be specially competent. Let them take their chance with the rest.

5. "If you set apart a special room and a special teacher for these favored few, what will be the inevitable result? You will create a bunch of 'snobs,' of 'intellectual aristocrats.' There will be no living with such a group. Leave them alone and they won't get the silly notion that they are better than their classmates.

6. "What about the teachers in the regular rooms? Do you think it is fair to them to take away from them their best pupils? And what about the pupils that are left? Do you want to take away from them the stimulus of these pupils you claim are so good?"

Comment on each of these six lines of argument.

Consult (1) T. S. Henry. "Classroom Problems in the Education of Gifted Children." *19th Yearbook, Pt. II* (1920) *of the National Society for the Study of Education.*
(2) Elizabeth Cleveland. "Detroit's Experiment with Gifted Children." *Sch. and Soc.*, xii, Sept. 11, 1920, 179-183.
(3) Guy M. Whipple. "Some Features of the Education of Gifted Children." *Ibid.*, 175-179.

(Use the reverse side of the page if necessary.)

Name..... Date.....

PROBLEM 10

Educational Program for a Backward Girl

Mary is the only child in a family characterized by sound health, high morality, culture, college training, artistic and musical ability. But at the age of fifteen she has reached only the fifth grade, is not succeeding there and shows no signs of further mental development. In fact, she has been increasingly difficult to train and her parents have at last seen fit to yield to the requests of the principal that she be taken from the public school and sent to some private school where individual attention can be given to pupils of her type.

Mary's parents visited the principal to get advice concerning what sort of work she should attempt in the school to which she was to be sent. It was brought out in the conversation that, while Mary had never made much progress in the formal studies, such as reading, spelling, arithmetic, she did seem to have some ability to observe and remember concrete things and events, that she did have a small amount of musical ability and that she was somewhat clever with her hands.

1. What sort of program would you map out for Mary's further training? What should she study?

2. What educational work ordinarily taken in the grades would you omit entirely from her program?

3. What things would you expect her to be able to do as an adult?

Consult references cited for Problem 8.

Name..... Date.....

PROBLEM 11

The Appeal to Instincts in Scouting

It seems to be generally conceded that the Boy Scouts and the Girl Scouts are organizations that succeed in enlisting the interests of their members and in training them in various ways useful to the boys and girls, both as boys and girls and as future citizens.

It has been said by those in charge that these organizations are based upon the principles that the efforts of adults to educate the young should appeal to their instincts and that at the same time the instincts should be wisely directed instead of being allowed to work by themselves.

Prepare a numbered list of human instincts like those drawn up by Kirkpatrick, McDougall or Thorndike, and a list of the characteristic activities of the Boy Scouts or the Girl Scouts; place against each of these activities the numbers of the instincts that you think are appealed to or are advantageously directed by the activity.

Consult (1) *Boy Scouts of America: Official Handbook.*
(2) J. E. West, "Scouting as an Educational Asset," *Proc. Nat. Educ. Assoc.*, 1916, pp. 1012-19.
(3) J. E. West, "Educational Work of the Boy Scouts, Girl Scouts, and Campfire Girls," *Report U. S. Bur. Educ.* 1916, vol. 1, 441-449.

Name..... Date.....

PROBLEM 12

The Doctrine of Recapitulation

In a certain school system the superintendent, principals, and teachers worked for some time to develop a fairly elaborate course of nature study. The topics for the several grades and the treatment of the topic within each grade were developed in accordance with a definite theory. Thus, in the first five grades the topics were Food, Shelter, Clothing, Devices of Communication, and Coöperation, respectively. The method of treatment of these topics may be illustrated by that chosen for the second grade. Here the pupils began with the simplest and oldest known kinds of habitations of plants and animals, then proceeded, step by step, to consider more and more complex animal habitations until they reached the earliest and simplest kinds of human shelters. These they studied in a similarly progressive order until they reached the discussion of the complex modern house.

To visitors who came to watch the work in nature study, the superintendent explained that the fundamental merit of his course of study was that it coincided with the principle that "every course of study should be based upon the doctrine of recapitulation. The child repeats the history of his ancestors, so that the best possible way to acquaint him with his present surroundings is to permit him to work over the lines of progress that have been made by the living beings that preceded him in the world."

Comment on this course of study. Do you think it is based on sound psychology? If not, what modifications should be made and why?

Consult (1) *Cyclopedia of Education*, article on "Culture Epochs Theory."
(2) C. C. Van Liew. "The Culture Epochs," *First Yearbook of the National Herbart Society*, 1895.
(3) H. T. Lukens and others. "The Culture Epochs," *Second Yearbook of the National Herbart Society*, 1896.

Name..... Date.....

PROBLEM 13

Fear of the Water

At M. College the regulations provide that the degree is withheld until the student passes a satisfactory examination in swimming. Mabel T. is a senior of superior ability who has not been able to pass this examination. She tries hard, but when the water covers her mouth, she gasps and struggles as if she were drowning and grabs the other girls frantically. After one of these episodes the swimming instructor found her pulse very rapid and her blood pressure abnormally high. The girl is very much disgusted with herself, feels very sensitive about her failure to swim, and cries after every attempt. When asked for an explanation of the obviously intense fear of water, she said that she had always had it. She recalled that when four years old, she had refused to walk over a canal bridge, but her grandfather, despite her struggles, had put her in a baby carriage and pushed her across the bridge. She is a real problem to the College Department of Physical Education. Because of her superior academic record, they feel that she is entitled to her degree, but they hesitate to make the precedent of waiving the swimming requirement.

1. Is it probable that this fear is ineradicable?

2. Do you know of similar special fears in adults that have been cured?

3. Do you know of any that have not been cured?

4. Ought Miss T. to be granted her degree without passing the swimming test?

Name..... Date.....

PROBLEM 14

Fear of Thunder Storms

When George was two years old, there was a violent thunder storm, the first he had ever seen. He ran into a dark room, shaking with fear and crying uncontrollably, where his father found him soon afterward.

The father was much perplexed as to just what he ought to do with George. He considered spanking him, scolding him, laughing at his tears, sympathizing with him, telling him a story to distract his attention from the storm, leading him to the window to watch the lightning and assuring him that there was no danger.

1. What was the best thing for the father to do, and why?

2. Do young children develop such a fear of thunder storms even if their parents and those around them show no signs of fear?

3. Is fear of thunder and lightning greater in children than in adults?

Name..... Date.....

PROBLEM 15

The Timid and Nervous Child

Wilford J. had to go to the foot of his class so often that he became obsessed with the idea that he never could remain at the top, no matter what he did. He seemed to live in perpetual fear of failure and developed an excessive dislike for school. Wilford's teacher adopted the plan of praising abundantly every success he did achieve, in the hope that this would cure his fear of failure and his dislike of school.

Ralph W., in another class in the same school, was an exceedingly nervous and timid child of about average ability. He did good written work, but when called upon to recite, often failed utterly and frequently burst into tears. Ralph's teacher visited his mother and decided that his nervousness was inherited from her. She finally kept Ralph after school every night and had him recite to her privately in order to avoid the difficulty that he experienced in the classroom.

1. Do you regard the methods adopted by these two teachers as satisfactory?

2. Are there any other methods that might be tried to diagnose and relieve the obstacles?

3. Describe similar cases of unusual timidity and lack of confidence that you have encountered in the schoolroom. Were they overcome, and if so, how?

Name..... Date.....

PROBLEM 16

Pugnacity

A teacher had for some time been trying to locate the real cause of the considerable amount of disturbance that was evident among the pupils of her sixth grade, both in the classroom and on the playground. She finally came to the conclusion that nearly all the trouble could be traced back to one boy whose surplus energy was constantly expressing itself in fighting. In the classroom this boy seemed to neglect his work, but yet he did well enough in his recitations, so that it was hard to find cause for serious complaint on that score. The teacher finally took this boy's case to the principal, saying that he was a problem that she couldn't solve.

If you were the principal of the school, what advice would you give this teacher or what would you do yourself, and on what grounds?

Name..... Date.....

PROBLEM 17

The Tough Boy

Asked to describe the "toughest case he ever handled," a teacher of some experience said: "When I was in charge of a boys' training school, Bert V., then 13 years old, came to us from the seventh grade of the public school. Bert's ancestors, for three generations back, were good, respectable people, except that about two years before he was born, his father lived for a time in a debauched state. Bert, himself, undoubtedly had a certain kind of ability. He was rather witty and often amused the other boys by telling funny stories, usually also vulgar. He was strong physically and had never had any set-back in his health. On the other hand, he had given constant trouble in the preparation of his work and in matters of school discipline. He never played games of any kind or even cared to watch them, but he would thoroughly enjoy tying two cats together by their tails and watching them fight when hung over a wire, and he enjoyed torturing animals in ways that are too sickening to relate.

"One of Bert's delinquencies was stealing. His father was a banker with a good income and gave him a good allowance, but he liked to steal, whether he could use the stolen property or not. His father could do nothing with him, and bemoaned it. I tried to find some way to appeal to him, other than punishment, but in vain. One day I found he had stolen ten dollars belonging to me. I called him into my office, showed him six switches, two paddles, and three straps, and told him they would all be used if the money were not produced. He could not be scared by this, but after a minute of actual punishment, he begged for mercy, went to the roof of his father's barn and came back with the ten dollars and more that I didn't know he had.

"For two years after this episode Bert was sent to a school in another state. When he returned, his father persuaded me to admit him to our school again, but within two months he stole more money, burned some of our library books and carried whiskey to other boys.

"Since that time he has broken into several stores, robbed his own father's bank of a nice sum, served for a time in the army, and is now in the penitentiary.

"Bert's brother is a university graduate with a good record. His sister is married and the mother of a highly respected family."

1. In what category would you place a boy like Bert?

2. Do you think his propensities could have been corrected? If so, how?

3. Do you know of any similar cases? Have any of them been reformed?

Consult (1) W. Healy. *Honesty.* Indianapolis, 1915.
(2) Hannah K. Schoff. *The Wayward Child.* Indianapolis, 1915.

Name..... Date.....

PROBLEM 18

Training a Boy Who Doesn't Play with Others

Vernon B., an eighth-grade boy, who tests one year above normal in intelligence, is almost never observed to play. There is nothing wrong with him physically, and he is of a happy disposition. He is aggressive enough in some ways; he likes to be first out of the room, for instance, and does not hesitate to shove others out of the way in the process. The only activity that he seems to enjoy is riding his bicycle, but he never cares to have company on his rides. A man who taught him for two years tried in vain to induce him to take part in track work with a group of boys of his own age and class.

Vernon's parents are both socially disposed and move in the best circles. His mother is an active member of various clubs and church organizations; his father is a successful business man, prominent in politics.

1. Have you any explanation for this lack of play?

2. Ought Vernon's parents and teachers to have taken unusual measures to get him to join other children in play, even to the extent of punishing him if he did not do so?

3. Have you observed other children with a similar disinclination to play? Describe their cases.

Name..... Date.....

PROBLEM 19

Training a Boy Who is 'Different'

The elementary supervisor in the schools of W. urged her teachers to bring before her conference detailed analyses of cases that bothered them. Miss E., who taught a 5A class, promptly complied with the following description of Albert M.:

"Albert is 11 years old. His complexion is pale and 'pasty.' He wears glasses for defective vision. He stutters slightly when nervous, but not much if given plenty of time and encouragement.

"His mind is active and alert, but lack of earnestness and application prevents proper progress and satisfactory learning.

"He was ill much in infancy, and is often very nervous and 'fidgety.' Can't sit still or keep at a task for more than three or four minutes.

"Doesn't fraternize with the other boys or 'get into the game,' either on the playground or in the schoolroom. Belongs to no 'set' of boys and is never elected to office in their clubs or even placed on committees, though he has enough ability and his mates know it.

"Albert's family is above the average in intelligence, refinement, and wealth. His mother is a semi-invalid, very nervous, and in constant fear that he may be ill, cold, hungry, mistreated, hurt, or not appreciated. For some time they sent him to Mrs. P.'s private school; they never allow him to be on the street at night, and even during the day keep him as far as possible from the company of the perhaps rough-and-tumble, but wholesome, boys of the middle-class families in their neighborhood, whom his parents refer to as 'bad boys.'

"Albert seems at times to lament his being 'different' from other boys, but he doesn't know how to adjust himself to them, though his teacher, and the boys, singly and in groups, have made efforts to socialize him. It is a question whether the 'clean mind' and 'refined habits' that his parents aim to develop by their policy of seclusion will be developed or not."

1. If you were the supervisor, what advice would you give Miss E. for getting satisfactory results in the training of Albert?

2. What advice would you give Albert's parents?

Name..... Date.....

PROBLEM 20

Special Disabilities

At the University of M. students in a certain course in the School of Education were studying the psychology of special abilities and special disabilities. In order to put into practice the principles adduced in this course the teachers of the local school system were asked for the names of all those pupils who showed average or superior general ability but who showed conspicuous inability in one subject. After a preliminary investigation of the cases reported, a certain number of pupils were selected who seemed to exhibit the most striking instances of disability in a restricted field. Members of the course then were assigned to study each case carefully and to seek by every device possible to analyze the nature and cause of the disability and to remove it if possible by means of special tutoring. At the close of the semester the reports showed that every one of the pupils so treated had been brought up to standard in their one poor subject, and the conclusion was reached that in no case had there really existed an intrinsic special disability.

1. What reasons can you assign for the results accomplished? In particular, why had the teachers of these pupils been led to infer the existence of a special disability? Why had the pupils done so poorly as to suggest the existence of these special constitutional handicaps?

2. Describe any similar instances that have come under your own observation.

3. Can it be inferred from this experience that special disabilities of a fundamental sort do not exist?

Consult Augusta Bronner. *The Psychology of Special Abilities and Disabilities.* Boston, 1919.

Name..... Date.....

PROBLEM 21

Special Disabilities

Margaret is nine years old and in the third grade, though she is not doing entirely satisfactory work. Thus, while she can spell well, her writing is almost illegible. She can recite long poems, but cannot interpret them. She reads aloud fluently, but can give very little when asked the meaning of what she has just read. She knows the number combinations taught in her grade, but, according to her teacher, "hasn't the slightest conception of number." She uses poor language in any attempt to express herself spontaneously. On account of these peculiarities, Margaret was referred to the school psychologist, who reported that a Binet examination showed her to be one year mentally retarded and to exhibit marked unevenness of abilities.

What steps might the teacher take to remedy Margaret's deficiencies?

Name..... Date.....

PROBLEM 22

Special Disability in Reading

James S. is seven years old and in the 2B grade. He comes from one of the best colored families in the city of N., is healthy, full of life, and considered the brightest colored pupil among a somewhat large group of colored pupils in this room. He does good work in penmanship, numbers, spelling, language, music, and the simple art work of that grade. He tries earnestly to read well, gives splendid and continued attention, but is the poorest child in the room in reading; in fact, but for this disability he would have been advanced to the 2A grade. His teacher is much interested in his case and feels that there must be some way to account for this difficulty with reading and some way to surmount it, but she can get no help from either supervisor or superintendent, who merely urge her to "keep after him."

What can be done in a case like this to locate and to remedy the difficulty?

Consult (1) C. T. Gray. *Deficiencies in Reading Ability; their Diagnosis and Remedies.* Boston, 1922.
(2) "Report of the Society's Committee on Silent Reading," *Twentieth Yearbook of the National Society for the Study of Education, Part II,* esp. Chs. i. and iii.

Name..... Date.....

PROBLEM 23

Special Disability in Spelling

Hazel G., a high-school junior, might doubtless be regarded as a typical example of the poor speller. She was carrying a heavy course and yet did work above the average in every respect except that her spelling was, as one teacher expressed it, "positively grotesque." She wanted to spell, and she tried, but she often misspelled the same word in two or three different ways in the same theme. A general physical examination, including a test of vision, revealed nothing wrong.

What are the possible explanations of this special defect?

Consult (1) Leta Hollingworth. "The psychological examination of poor spellers," *Teachers College Record.* 20: March, 1919, 126-132.
(2) Leta Hollingworth and C. Amelia Winford. *The Psychology of Special Disability in Spelling.* Teachers College, Columbia Univ., Contrib. to Educ., No. 88.
(3) L. W. Kline. "Study in the psychology of spelling," *J. Educ. Psych.*, 3: 1912, 381-400.

Name..... Date.....

PROBLEM 24

Special Disability in Music

Miss I., the new music supervisor in B., after giving certain tests in singing the scale, naming selections heard on the phonograph, telling which of two tuning forks was the higher in pitch, etc., brought to the teacher of each of the grades in B. above the fourth a list of pupils who were thereafter to be excused from taking part in the singing exercises, but who were to be given certain other school work to perform, whatever the teacher might elect, while the remainder were singing.

Several of the parents of the children who were excluded from participation in the school singing were greatly incensed. They wrote letters and made calls upon the superintendent of schools in which they claimed that the exclusion of their children was an insult. "We pay taxes to support these schools," one of them argued, "and public education is free to all the children in this city. You have no right to keep our children from learning to sing just because they can't sing, perhaps, as well as some others."

Miss I., when called upon by her superintendent to justify her policy, declared that the pupils she had excluded were practically tone-deaf. "They couldn't tell Yankee Doodle from Home, Sweet Home. No amount of instruction will make them musical, and their presence in the singing classes simply spoils the singing for the rest. There's nothing undemocratic in excluding from a certain kind of instruction those pupils who can't profit at all by that instruction. Public education doesn't mean that every child must be taught everything."

1. What is your opinion of the general merits of this controversy? Which position is justified, that of Miss I. or that of the indignant parents?

2. Are there methods available that would justify Miss I. in basing her exclusion of certain pupils on their use? What methods?

3. Do you know of any instances in which undoubtedly unmusical children became musical as the result of careful and persistent instruction? Describe them.

Consult C. E. Seashore. *The Psychology of Musical Talent.*

Name..... Date.....

PROBLEM 25

Special Disability in Geometry

Miss Smith, a sophomore in the L. high school, who is an excellent student in most subjects, finds plane geometry exceedingly difficult and so distasteful that she applies for permission to withdraw from the course.

Supt. A., in charge of the schools at W., writes to the committee in charge of high-school certification in his state, for permission to put geometry upon the list of elective subjects, saying: "I used to believe thoroughly in making geometry a required course, but I have seen so many failures in it, especially on the part of girls who are doing well in other work and who will never need it afterward, that I have come to believe that it is one of our great educational crimes to compel everyone to take that work."

In a discussion held in a class in educational psychology it was maintained by several students that success in algebra bore no relation to success in geometry, so that it was meaningless to talk about a sort of "mathematical ability," the possession of which would insure successful work in both these courses.

1. Is it true that excellence in other high-school subjects is little associated with excellence in geometry?

2. Is it true that boys do better than girls in geometry?

3. What are the mental operations or abilities, if any, in geometry that are different from those involved in other high-school subjects and that are likely to cause special difficulty for some pupils?

Name..... Date.....

PROBLEM 26

Peculiar Writing Habits

In the city of F. there was in the fifth grade a boy named Jack who had been a great puzzle to his teachers from the outset of his school career because he could not seem to learn to write. If the teacher 'stood over him' and compelled him to imitate the copybook, he would laboriously produce a rather poor specimen of writing, but if the copybook was removed and he attempted to write by himself more rapidly, he insisted on beginning at the left end of the line and produced a specimen that was absolutely illegible. Finally, the fifth-grade teacher discovered one day by accident that if this apparently illegible writing was held so that one end was against a mirror, the writing appeared correctly in the mirror. After that she often got Jack to write on the board for the entertainment of visitors and astonished them by producing a large mirror and demonstrating that he could write in this peculiar fashion, but she was still unable to get the boy to write like the other children. Finally, a psychologist happened to see Jack's writing and asked him to write his name on the board, holding the chalk in his left hand, whereupon he wrote his name rapidly and legibly so that it could be read without resort to the mirror.

1. What is the name of the writing done by Jack?

2. How should he be taught to write?

3. Do you know of other children who have displayed this peculiarity?

Consult (1) June E. Downey. "On the reading and writing of mirror-script." *Psychol. Rev.*, 21: 1914, 408-441.
(2) M. Strack. "Mirror-writing and left-handedness." *Pedagogical Seminary*, 2: 1893, 236-244.
(3) G. M. Whipple. *Manual of Mental and Physical Tests.* Pt. II, Baltimore, 1915. Test 36.

Name..... Date.....

PROBLEM 27

Left-Handedness and Stuttering

Otis S. is a somewhat nervous, sensitive boy in the fourth grade. His father is left-handed, and the boy showed the same tendency in his early years. When he entered school, the father insisted that the teacher should train Otis to write with his right hand. The lad was willing, but the task obviously worried him and after a few months he developed a bad case of stuttering. The teacher in the next grade, whom the father had not interviewed, let the boy use his left hand when he came into her room, whereupon he improved decidedly in speed of writing and his stuttering disappeared. After a year of this his father decided that Otis had gotten over his nervousness and persuaded the teacher of the next grade to compel him to use his right hand once more. In a short time Otis was stuttering as badly as before.

1. Ought naturally left-handed children to be compelled to write with the right hand?

2. Is the connection between compulsory right-handedness and stuttering which appeared in this boy merely due to his somewhat nervous disposition or is there some more fundamental connection between the two?

3. What percentage of pupils are naturally left-handed?

Consult (1) P. B. Ballard. "Sinistrality and Speech." *Jour of Exp. Pedag.*, 1: 1912, 298-310.
(2) *Cyclopedia of Education,* article on "Ambidexterity."
(3) L. M. Terman. "*The Hygiene of the School Child.*" Boston, 1914, 345-346.
(4) J. E. W. Wallin. "A Census of Speech Defectives Among Public School Pupils," *Sch. and Soc.*, 3, Feb. 5, 1916, 213-216.
(5) J. E. W. Wallin. "Rept. on Speech Defectives in the St. Louis Public Schools." *Rept. Brd. Educ. St. Louis,* 1915-1916, 174-211, esp. 179-182.

Name..... Date.....

PROBLEM 28

Interpretation of a Set of Symptoms

Henry Jones, a fifth-grade pupil, shows a distinct dislike for school work. He is irritable, restless, inattentive, sometimes says his head aches. He has a perpetual peering or scowling expression. His fourth-grade teacher had noted the same characteristics and spoken of them to the fifth-grade teacher, saying: "I thought for a time he might have trouble with his eyes, but you will notice that he doesn't have to hold his book close to his face and that he can see things on the blackboard just the same as the other children." The fifth-grade teacher replied: "Yes, I have been watching Henry. I think I know what the trouble is, and I'm going to find out in a day or so."

What did the fifth-grade teacher expect to find and how did she propose to do it?

Name..... Date.....

PROBLEM 29

Perception of Color

Mr. F., an instructor in civil engineering in the University, was visiting the room of another instructor, Mr. W. and chided him for picking out a greenish colored figured burlap for a screen he had just bought. Mr. W. retorted: "You must be crazy; that is yellowish brown; there isn't a bit of green in it." The argument continued for some time, but was settled later on by F.'s admission that perhaps he was wrong.

The next day F. sought out W. again and said: "I've been thinking about that screen business and it comes back to me that I was sick for several weeks when I was in the primary school just at the time when the teacher was taking up color with her pupils. When I got back again she was just too lazy to take the trouble to teach me what I had missed, so that's the reason, I'm sure, why I make mistakes like the one I made last night."

1. How did W. presumably go about it to convince F. that the screen was brown?

2. What was the reason that F. said it was green?

3. Was the primary-grade teacher responsible for F.'s failure to name colors correctly?

4. Are many pupils troubled with F.'s difficulty?

For technical details, consult G. M. Whipple, *Manual of Mental and Physical Tests*, Pt. I. Baltimore, 1914. Test 16.

Name..... Date.....

PROBLEM 30

Sex of Teachers for Adolescent Pupils

Elmer B. was a boy of normal intelligence and good parentage. He was inclined perhaps to be a little stubborn at times and to indulge in mischievous pranks, but he was always honest and took his punishment, a good deal of which was meted out to him in the seventh grade, without resentment. His school work in that grade was satisfactory, but during the eighth grade and the first two years in the high school his work became increasingly unsatisfactory and his attendance increasingly irregular. At the end of his second year, he and a number of other boys left the high school. A year later, when it was announced that the school was to have only men teachers, Elmer and all the other boys returned to the school and all of them graduated in due time.

The man who narrated this incident goes on to say: "In five other schools in which I have had a personal knowledge of the situation this same thing has occurred. In another school that I have known in which six women teachers were replaced by six men teachers, the percentage of students remaining through the four years has in the last five years exactly doubled. It is perfectly clear to me that when a boy reaches the age of thirteen or fourteen years, he should be taught by men. Women teachers, at least the majority of those we find in our high schools to-day, don't understand adolescent boys, don't know how to teach them what they want to learn and ought to learn and don't enlist their best efforts."

1. What comments can you make upon this contention? Do you agree or disagree with it? Can you cite facts that confirm or negate it?

2. Can an equal case be made for the contention that adolescent girls ought to be taught mainly by women?

Name..... Date.....

PROBLEM 31

Sex Differences and Secondary Education

At an educational convention a group of high-school principals fell to discussing the proposal to rearrange the high schools of a certain city in such a way as to locate the boys and girls in separate buildings. Some of the contentions heard were the following:

Mr. A. "Any city that gets large enough to do it ought to put up separate high schools for boys and girls. Both sexes do better work by themselves. The boys become more manly and the girls more womanly. More boys continue through the high school in a regular boys' school. Besides, their interests are different and they need to take different subjects."

Mr. B. "I don't agree with you. It is natural for the sexes to be together. They are together in their homes and in their life outside the school and in their lives as men and women. It is artificial and unnecessary to separate them in their studies for four years just because they are in the stage of adolescence. The boys tend to get too rough and the girls to get too feminine if they work all day with only their own sex about them."

Mr. C. "I think the sexes ought to be educated in the same school, but take different subjects if they want to. Boys do the better work in mathematics, physics, chemistry, and history; girls do the better work in the languages and in literature. Of course, I admit that girls can memorize a subject like geometry if that's the way you teach it, but they don't have so much ability as boys when it comes to 'originals' or anything else that depends more on thinking than on mere memorizing."

Mr. D. "It may be true that girls don't do so well as boys in some things; for instance, they don't know how to make things go in the physics laboratory as well as boys, but that's just because women haven't been given a chance to try things of that sort until the last generation or so. In a few generations, when the 'gentler sex' has been trained in that direction, we shall have just as many inventions made by women as by men."

Mr. E. "As far as that is concerned, the reason why girls do better work than boys in languages and literature is just because they are more docile; they do what you tell them to and study more than the boys do."

Mr. F. "You're all wrong. Boys and girls and men and women are just about the same in intelligence. The difference is in their emotions. Women 'run' themselves by 'hunches' and intuitions and feelings; men 'run' themselves by getting the facts and reasoning about them. The difference is fundamental and education won't change it."

What light, if any, do psychology and educational statistics throw on the contentions of these six high-school principals?

Consult (1) "Coeducation," in *Cyclopedia of Education.*
(2) G. M. Whipple. "Psychology and hygiene of adolescence," being ch. vii in *Principles of Secondary Education* (edited by P. Monroe), especially pp. 308ff.
(3) "Group success in college entrance examinations." *Sch. and Soc.*, 17: Jan. 20, 1923, p. 72.

Name..... Date.....

PROBLEM 32

Attention and Distraction

Superintendent G. became convinced that Miss D., his fourth-grade teacher, who was a novice, was not getting satisfactory results. During a short visit of supervision to her room he noted the following occurrences:

Stella insisted on leaving the room for a drink. The janitor came in to see what the thermometer indicated. A noisy street car and a rattling wagon passed the windows. Johnny threw a paper wad at Joe. A boy in the back of the room shuffled his feet noisily. Fannie complained to Miss D. that Henry was putting his feet on her desk. The third-grade teacher sent a girl in with a note for Miss D. The principal dropped in and chatted a few minutes with the superintendent. The teacher of gymnastics led a class into the near-by hall for some physical training exercises.

Later in the day Mr. G. criticized Miss D. for the general inattentiveness to work shown by her pupils. Miss D. rather resented his criticism and said that she was working under impossible conditions. The superintendent replied: "It's part of your job to interest your pupils in their work. If you gave them something to attend to and told them how to go about it, they wouldn't know what was going on about them."

1. Was Supt. G. or was Miss D. in the right or were they both partly right and both partly wrong?

2. What remedies do you suggest for curing the state of affairs existing in this room?

Name..... Date.....

PROBLEM 33

Doing Two Things at Once

In a certain small high school the habit of gum chewing had become very prevalent among the students, but a new principal was strongly opposed to it and issued stringent orders against the chewing of gum inside the walls of the school building. A number of students finally asked this principal why, if it were permissible to chew gum outside the schoolroom, there should be any real objection to chewing it inside the schoolroom. The reply of the principal was: "Psychology teaches that it is impossible to do two things at once and do them well; one cannot, therefore, chew gum and at the same time prepare one's lessons." The students were impressed by this reference to psychology. As one of them remarked in reporting the incident: "As our principal had just graduated from college, we thought this was the final word, and since he proved to us why we ought not to chew gum in school, we all agreed to abide by his ruling."

1. Is the principal's explanation a valid one? What does psychology have to say about "doing two things at once?"

2. What reply would you have made to the students' question?

Name..... Date.....

PROBLEM 34

Progress Charts as Incentives

In the City of Y. the supervisor of penmanship supplied each pupil with a chart on which could be recorded the quality of writing as determined by reference to the Ayres Handwriting Scale. The rating of each pupil's specimen was done by a committee appointed by the class and his progress appeared as a curve carried forward from week to week. The average quality of writing done each week was considered the class standard for that week.

In the City of J. the supervisor of special classes found that a group of 25 pupils that had been segregated for special instruction because of slow school progress and repeated failure (though none was definitely subnormal in intelligence) was characterized especially by poor reading. In order to improve their reading she gave, once a week, a short reading test of a style and subject matter to fit the ability and interests of the group. The test was followed by 10 questions. The teacher graded the answers and recorded on a large chart hung on the wall the number of correct answers made by each child each week. This record was made in such a way that the position attained by each pupil was indicated not only for each week but also for the total accomplishment during the term.

1. On what psychological principles are these methods of stimulating work used?

2. For what other subjects do you think that similar methods could profitably be employed?

3. What are the conditions, if any, under which this plan of checking and recording the progress of each pupil could not be used or ought not to be used?

4. Do you know of any schools in which extensive use is made of methods like those above described?

(Use the reverse side of the page if necessary.)

Name..... Date.....

PROBLEM 35

Rivalry as an Incentive

Mrs. Smith, principal in a small school in a Pennsylvania town, in the course of a conversation with Mr. Brown, principal of a neighboring high school, raised the following problem:

"Ernest C. and Lewis S., two of my boys who graduated last year, were both of unusually fine families and lived in adjoining homes. They had entered school the same day, worked through the grades together, entered the high school together, took the same courses and made approximately the same grades in all their work. Mrs. C. and Mrs. S. were not only neighbors, but apparently very good friends. Nevertheless, each was secretly jealous of the successful progress of the other's boy, and the spirit of rivalry which appeared even in the first grade gathered impetus as the two boys grew older, until in their high school years each mother continually urged her son not to let the other boy beat him in any test in any subject. This urging kept the two boys going at top speed; their strenuous endeavors put them far ahead of their classmates, and both of them finished the four-year course in three years as a consequence. I have no doubt that without this persistent urging by their mothers both boys would have gone along comfortably, taking four years like the others, and I have to confess that the two boys remained good friends. At the same time I was very much worried. I felt that the forced pace was unnatural; that the boys didn't really work for the satisfaction of working or for their own good, but simply because they were pushed by the exhortations of their mothers. Do you think I ought to have interfered?

If you were Mr. Brown, what reply would you make to Mrs. Smith's question, and on what grounds?

Name..... Date.....

PROBLEM 36

Incentives in Spelling

A teacher of a fourth grade was especially anxious to improve the work of her pupils in spelling. In the course of the year she tried the following devices:

1. A red star was awarded to each pupil who scored 100 percent in spelling for any week and a gold star to each pupil who scored 100 percent for any month.

2. A post-card album was given to each pupil who scored 100 percent in spelling for three months.

3. Each pupil who missed either two or three words on any given day was required to stay in from recess on that day.

4. Each pupil who missed four or more words on any given day was required to stay after school and write each word missed, 25 times.

5. The seating of the pupils was changed each month and was based on their standing in spelling during the preceding month.

6. Spelling papers that were without error and that were exceptionally neatly written were tacked along the blackboard for exhibition purposes.

7. The class was divided into two groups in such a way that the total score for Group A was equal to the total score for Group B during the month preceding the division. The two groups were exhorted to surpass each other during the month to come.

1. What is the psychological nature and what are the merits or demerits of each of these seven appeals?

2. Can you suggest other and better devices for stimulating fourth-grade pupils in such work as spelling?

Consult W. C. Bagley. *Classroom Management*, ch. xii.

Name..... Date.....

PROBLEM 37

Conquering Difficulties as an Incentive

In a conference of the elementary-school teachers of a certain school system a discussion arose concerning the incentives that the teacher should try to develop in the pupils.

Mr. K., who opened the discussion, took the position that the learning of the various details of subject matter—the facts of geography, history, arithmetic, and the like—was really secondary to the development of an efficient mind and more especially of a sound character. He contended, furthermore, that the fundamentally important trait in character was the ability to 'carry on' against odds. He concluded his remarks by quoting with approval from an educational magazine this sentence: "One of the conditions which exists in an efficient school is that the underlying incentive of the students' work shall be to conquer difficulties."

1. Judging from your own experience and from what you know of psychology, is there any single immediate incentive that teachers should strive, above all others, to develop?

2. If there is any one incentive that should underlie all the students' work, is it to conquer difficulties? If not, what is it?

3. If a student is working happily and without much difficulty, is it the duty of the teacher to introduce difficulties in order to give him an opportunity to conquer them?

4. Is the learning of subject matter secondary to the development of character, as Mr. K. contended?

Name..... Date.....

PROBLEM 38

The Project as an Incentive

Miss White, who taught the fourth grade, made use of certain projects to stimulate interest in the study of the pioneer period. The boys built a small settlement, with cabins, a fort, a stockade; the girls dressed dolls to resemble the settlers and the Indians, and the class, in general, devoted considerable time to this rather realistic representation of an Indian attack upon the early settlers.

Everyone admitted that the pupils got unusual satisfaction from this work, and moreover, that they knew pioneer history far better than most fourth-grade classes. On the other hand, the work aroused opposition among certain teachers, who said that the children thought and talked of nothing else, and also among some of the parents, who complained that the children were forever making something for this class, at the expense of their other lessons.

In the same school system, Mr. Brown, who was teaching general science to a group of 15-year old pupils, and having difficulty in arousing their interest, finally got the boys to construct a small pool, or aquarium, which was stocked with a variety of fish, pond weeds, and other aquatic life. This undertaking developed great interest. Certain pupils were delegated to study and report upon the life activities of certain fishes, and all went well, until one day by mistake, someone put a gar-pike in the pool. This fish soon began to devour his smaller mates, whereupon there was great commotion among the 'owners' of these fishes, and there was a regular 'stampede' of children from one of the other classes in the effort to rescue their property from the gar.

Here, similarly, everyone admitted that the building of the pool had stimulated decided interest in nature study, but Mr. Brown was much criticized for introducing a type of activity that disrupted the work of the school, exacted too much time from the pupils, and caused them to neglect their other studies.

1. Comment on these situations. Did Miss White and Mr. Brown "go too far," as their critics said, in seeking devices to arouse interest?

2. What is the psychology of these devices? Why did they incite interest in pupils that were not responding to other methods of teaching?

Consult (1) Kilpatrick, Bagley, *et al.* "Dangers and difficulties of the project method and how to overcome them; a symposium." *Teachers College Record,* 22: Sept., 1921, 283-321.
(2) Melissa A. Jones. "Dangers and possibilities of the project." *English Journal,* October 1922, 497-501.

Name..... Date.....

PROBLEM 39

Incentives for a Boy with No Interests

Howard F. is one of the four sons of a well-to-do family. His two elder brothers entered college at 16 and have made brilliant records. Howard is now 13 years old and in the ninth grade, where he is failing in all his subjects. In group intelligence tests, like the Army Alpha and the Otis Advanced Examination, he stands well above his class median, while a Binet examination indicates a mental age of 18 years.

Howard's mother is in despair. She says he is "interested in absolutely nothing," that all the punishments she has thought of, like depriving him of his Boy Scout work or of his club work, do not incite him to study, as he is glad of an excuse not to have to "bother" with them. She has appealed to his pride, to the family reputation, to the brilliant records of his brothers, all to no avail. "He just doesn't care about anything or anybody. The only things he really does with any sign of interest are to read stories, preferably Indian stories, and to go to the 'movies.'"

His mother now begs the principal of the school for advice as to what to do with Howard, and concludes by saying: "Do you think a good whipping would make him study? I'm willing to try it if you say so."

1. What additional information, if any, would you desire from Howard's mother before advising her?

2. What causes may operate to cause this decided lack of interest?

3. What advice would you give Howard's mother?

Name..... Date.....

PROBLEM 40

Incentives to Speed and Accuracy

In his *Every-day Problems in Teaching*, Professor O'Shea says: "The writer was recently an observer in the eighth grade of a city school. The teacher was a graduate of an eastern college for women, and she appeared to be well-informed upon the subjects she was teaching. But she had got the impression from some source that accuracy and speed were greatly to be desired in education, and she strove to attain these desirable qualities in much of her work, especially in mathematics, spelling, and all written exercises. The outcome of her method was especially apparent in her class in arithmetic. She dictated problems to her pupils, first warning them that she would give them but twenty minutes in which to write and solve seven of them. While the pupils were working, she urged them onward every three or four minutes in such terms as: 'Make haste;' 'You are not working fast enough;' 'I don't want any laggards in this school;' 'Some of you might better be back in the seventh grade than here.'"

When the exercise was completed and the papers marked, "it was found that most of the pupils made at least one error, and some of them made nothing but errors. Then the teacher 'sailed into' these latter unhappy individuals. She asked them why they did not take time enough to do their work accurately. She said: 'If there is anything I can't stand, it is mistakes. One who makes mistakes isn't good for anything. If you can't do work more accurately, you better go back to the third or fourth grade, and learn how to do it.'"

1. Is there any psychological justification for this teacher's method of stimulating work?

2. Is there any psychological basis for condemning it?

3. If you were the teacher, what methods would you use in order to cultivate speed and accuracy in spelling and arithmetic?

Name..... Date.....

PROBLEM 41

The Effect of the Teacher's Personality

The high school at H. was so organized and operated that discipline was a minor problem. The teacher of geometry, Miss M., spoke in a low, monotonous tone of voice, seldom left her chair, and exhibited in general a decided attitude of laziness and indifference. Nevertheless, her pupils worked quietly and efficiently, though without perceptible enthusiasm, and the ground was covered properly.

1. Would you rate Miss M. as a good teacher? If so, why? If not, why not?

2. Does this instance prove that spirited recitations and a general atmosphere of enthusiasm are unnecessary?

3. Do you think that the class work in other high-school subjects could be carried on in the same way? If not, in what subjects would it be distinctly undesirable, and why?

Name..... Date.....

PROBLEM 42

Committing to Memory

In a certain small high school the work in English in the first two years was so arranged as to include a considerable number of declamation exercises. Each student had to commit to memory and to give before the class a number of rather long poems and two or three classical orations. The results were far from satisfactory, because few of the students were 'letter perfect.' Some of them, in fact, had to try two or three times before they were able to give the entire poem or speech without breaking down somewhere and leaving the platform in confusion. Finally, one of the students demanded of the teacher that she give them some help as to how to get this work done efficiently.

1. If you were the teacher, what suggestions would you give for improving this memorizing?

2. What authorities could you cite to justify your reply?

Name..... Date.....

PROBLEM 43

Committing to Memory

In a certain city school system the teachers require pupils about ten and eleven years old to commit to memory a considerable amount of material, such as the names of the principal countries of the world, the largest cities in each of the states, and many poems. Some of this material is too complex for them to understand at this time, and most of it is uninteresting then, though it is material that they will probably be glad to know later on.

1. What arguments can be advanced in support of this policy?

2. What arguments can be advanced against it?

3. If you endorse this policy, state here some of the items that you would prescribe for early memorizing, in addition to those mentioned above.

Name..... Date.....

PROBLEM 44

Committing to Memory

Miss Martin, a grade teacher, teaches all the multiplication tables by having the pupils sing them. She also teaches some of the facts about spelling by the use of certain jingles.

Miss Hopkins, a high-school teacher in the same school system, on hearing of Miss Martin's method, had her students learn important dates in American history by arranging them in nonsense jingles.

Mrs. Stoner, describing in *Natural Education* the way her daughter learned, says (p.99): "Winifred salts down all bits of information which she wishes to remember by transforming them into jingle form. Recently she has published a number of these jingles in a little book entitled *Facts in Jingles.*" On page 105 is published "A Bony Song" that Winifred wrote at the age of eight, "to help her remember the names of her bones." A sample section of this composition runs:

> "The smallest bones are in my ear,
> And help me when I want to hear.
> These bones so small are hard to see—
> The mallet, anvil, stapes wee."

1. What is the psychological advantage in the use of song, rhymes, and verse in this way?

2. Are there any disadvantages in the use of rhythm as an aid to memorizing

3. Are such aids to memorizing more effective when composed by the pupil than when composed by some adult for the pupil? If so, why?

(Continued on reverse side.)

4. Would this method be justifiable also in high-school work, *e.g.*, in learning French verbs, Latin declensions, rules for grammatical constructions, and formulas in physics?

5. Is it easier to memorize the words of a song in the process of learning the song than to memorize the same words without using the song?

6. Mention any items in your school work that you have learned with the aid of rhymes, jingles or a musical setting.

Name..... Date.....

PROBLEM 45

Special Disability in Memorizing

Mr. L. is a prominent and successful business man in a certain university town, whose application to join the Masons was accepted. Soon afterward it was discovered that L. was having some difficulty in memorizing the things that it was necessary for him to memorize (almost entirely from oral presentation) before proceeding further. Professor K., one of the leading men in the university, thereupon undertook to coach L. so that he could meet the obligations imposed upon him.

According to Professor K., ten days of persistent effort showed practically no progress whatsoever. Mr. L. was so anxious to succeed that, to quote K., "he almost sweat blood," but no sooner had he learned one line and proceeded to the next when he would have forgotten the first line. At no time in ten days could he recite as many as four consecutive lines without a mistake. Finally, L. had to give up the idea of further progress in Masonry.

1. To what would you attribute Mr. L.'s difficulty? Does it seem likely, for instance, that unusual dullness accounts for it?

2. By what methods, if any, do you think it might have been possible to have coached Mr. L.?

3. Have you encountered any similar instances of uncommon difficulty in the memorizing of verbal statements? Describe.

Name..... Date.....

PROBLEM 46

Methods of Studying Spelling

A class in the fourth grade was studying a spelling lesson. The teacher had written ten words on the blackboard and had announced that in fifteen minutes the words would be erased and that immediately thereafter the class would be expected to write them correctly as she pronounced them.

As she watched her pupils, the teacher found that they were adopting different methods of studying the lesson.

(a) Some pupils took pencil and paper and copied the words several times during the study period.

(b) Some pupils, perhaps most of them, spent the time in looking at the words on the board and spelling them over and over, inaudibly, though usually moving their lips.

(c) Some were observed to look at a word, apparently pronounce it to themselves, then look away from the board in an evident attempt to spell it, and afterward look back again to verify their spelling.

1. Which of these three methods is the best, and why?

2. Is there any other method which is better than any one of these three?

3. Ought all the pupils to have used the same method in studying the lesson? Justify your answer.

4. Ought the teacher to have trained these pupils to use a certain method of studying their spelling lesson?

Name..... Date.....

PROBLEM 47

Eye Learners and Ear Learners

A fifth-grade teacher asked for and received permission from her principal to group her pupils into three sections for certain parts of their work, particularly in drilling on spelling and on some portions of the work in arithmetic. She called her sections the 'visuals,' the 'auditories,' and the 'motors,' respectively. She placed in the first, she said, those who learned most rapidly and most naturally by the eye, in the second those who learned best by the ear, and the third those who learned best by talking and especially by writing. When other teachers were puzzled and dubious about her method, she declared that it was fully justified by modern psychology.

1. To what facts in psychology did this teacher refer?

2. Was her method justifiable? If not, why not?

3. If her method was not justifiable, do the facts to which she referred suggest any other method of classroom procedure?

Name..... Date.....

PROBLEM 48

Periods of No Progress in Learning

Miss H. undoubtedly had a good knowledge of her subject, but during her first year's experience in teaching beginning French in the high school she became greatly discouraged, toward the middle of the year, at the results she obtained. In conversation with Mr. M., head of her department, she declared that in the past four weeks the pupils had made not the slightest improvement in their ability to read sentences in the French or to translate them into English, though she had tried every method she knew of to stimulate their interest.

Mr. M. said: "You don't need to be discouraged. If you have studied psychology, you know that just such a thing is likely to happen. I've had it happen nearly every year in my own sections."

But Miss Q., who taught physical training, and who had a caustic tongue, declared: "There isn't any psychology about it, unless there's a 'psychology of laziness.' Just make them understand that they are likely to take the course over again if they don't do better work, and you'll get some results."

1. What did Mr. M. have in mind by his reply?

2. Is there any possibility that Miss Q.'s explanation was correct?

3. Is there any other explanation that is possible? What?

4. Have you noted a similar temporary stage of little improvement in any of your own work? In what subjects? How long did it last?

Name..... Date.....

PROBLEM 49

Learning by Doing

In his *Learning Process* Professor Colvin illustrates one of the prevailing ideas about methods of teaching as follows:

"Suppose that a seventh-grade class is to be given instruction in the making and use of the electric battery. The children may be required to get together with a great deal of difficulty and pains the materials necessary for the construction of the battery—the glass jar, the copper and zinc, the wire, the acids, and so on: then they are told in the class to make the proper connections with the various batteries so that the current may ring an electric bell. After a great amount of trouble, and no little expectation, the wiring is completed, but the bell does not ring, and the class ends with the experiment unsuccessful."

1. What is the psychological argument in favor of this method of teaching the electric battery?

2. What is the psychological argument against the method?

3. Would the argument pro or con be altered if we assume that the experiment terminated successfully—if the bell did ring?

Name..... Date.....

PROBLEM 50

Location of Vocabularies for Economy in Learning

Mr. R., who was much interested in the study habits of his boy, a high-school sophomore, watched the lad one evening while he was preparing his French, which consisted in the translation of a chapter in a story. He came to the conclusion that roughly forty percent of the boy's time was spent in thumbing the pages of the vocabulary at the end of the book, hunting up the meanings of the new terms, which were, in fact, quite plentiful in this story. He estimated that, on this basis, some thirty to forty hours of the boy's time would be spent during that term in the high school in what seemed to him a process that had not the slightest educational value.

The man who had edited this particular French text happened to live near by, and Mr. R. told him of his conclusion, saying: "In my business we couldn't tolerate such a waste of valuable time as you people in education seem to take for granted. Why can't the meanings of new terms be printed right on the page where these words occur, so that they can be located immediately?"

The professor of French seemed amused by this comment and sought by several arguments to prove that the plan of keeping the vocabulary at the end of the book was entirely justifiable and, indeed, superior to the plan proposed by Mr. R.

1. What were the arguments presumably advanced by the professor of French?

2. Do these arguments support his method as superior to the one advocated by Mr. R.?

Consult S. C. Parker. *Methods of Teaching in High Schools*, pp. 158-160.
Examine various Caesar texts.

Name..... Date.....

PROBLEM 51

Sequence of Studying and Reciting

Mr. W., who is in charge of a small, but quite successful private school in which the pupils remain under his direction from 9 in the morning until 4 in the afternoon, has arranged the daily program for each pupil so that the studying for each lesson of the following day is done directly after the day's recitation in that subject. For example, if Pupil A recites geography in the third period on Monday, he spends the fourth period of that day studying Tuesday's geography lesson. Some of the parents wondered at this arrangement and thought it was more natural to study any lesson during the period just before it was to be recited.

Is Mr. W.'s arrangement better than the one the parents would have made? If so, on what psychological grounds can he justify it?

Name..... Date.....

PROBLEM 52

The Effect of Mistakes

Mr. T., principal of a large elementary school, called his teachers together near the opening of the school year, and announced various policies on which he proposed to operate the school. Among other things, he urged all teachers to stop pupils whenever they seemed about to make mistakes, especially when the pupils in question were reciting. Thus, if a child were almost certainly about to make a statement that was wrong or pronounce a word wrongly or answer a question wrongly, the teacher was instructed to interrupt him if possible before he finished what he was starting to say. If he made one mistake in reciting a multiplication table, another child was to continue, on the assumption that the first child would probably make another mistake. In the same way, Mr. T. counseled the singing teacher to stop her work if the pupils, through fatigue or ennui, began to sing inaccurately.

The teachers felt that the carrying out of Mr. T.'s request imposed considerable strain upon them and was decidedly annoying to the pupils, but he declared that what he requested was strictly in accord with educational psychology.

1. Upon what principles of psychology did Mr. T. base his request?

2. Is his plan justified?

Name..... Date.....

PROBLEM 53

Teaching Students How to Study

At a certain state university many of the students who were put "on probation" for unsatisfactory work assigned as one cause for their failure "not knowing how to study." In a discussion of this situation it was suggested by Professor J. that a series of lectures should be given to freshmen to help them study more effectively. Professor V., however, thought such lectures entirely unnecessary. "The assertion of these students is absurd," said he. "Anyone who has been in public schools for twelve years and is good enough to come to the university must know how to study, but if he has not found out by that time, it is too late for anyone to help him then."

Mr. R., the principal of a large high school, who overheard this discussion, concluded that, whatever might be true about university students, it was not too late to help his own students. Accordingly, he soon afterward called a meeting of his teachers and solicited their opinions as to what might be done in his school.

Miss S., teacher of Latin, said: "There are on the market a number of good books on the art of studying. Let's put a copy of each of these books in our school library and call the attention of all students to these books."

Mr. M., teacher of science, said: "If you really want the books read by all our students, one copy is not enough. I would favor appointing a committee of teachers to examine these books and to select the best one of them. Then let's require each student to buy a copy, or at least require each member of the freshman class to buy a copy."

Mr. R., the principal, felt that the requirement to buy a book on studying wouldn't ensure that the book was read. He proposed that he, himself, should take ten minutes at each of a series of general assemblies to which all students should be summoned, and should read and comment upon portions of the book at each assembly until he had covered the whole book.

Miss G., teacher of domestic art, then suggested that the plans proposed by Mr. M. and Mr. R. could be combined and modified by introducing a book on studying as a regular part of the reading in freshman English. Her idea was that each student in that course, which was required of all freshmen, should buy a copy of the book and that Miss B., who handled the course, should then have the book studied and recited upon just like any other required reading in the course.

Miss B. then agreed, if it was so voted, to follow the plan proposed by Miss G., but she added: "I would undertake it only provided every teacher to whom my pupils recite would join me in carrying out the ideas of the book. As I see it, the problem is not simply to tell our students how they ought to study; the problem is rather to get them to study that way, and that's a problem in habit-formation and can't be worked out unless every teacher coöperates with me in following up the practice of effective studying in every class in the school."

1. Do you agree with Professor J. or with Professor V.?

2. Which one of the high-school teachers had the best plan for improving the studying of their pupils? Explain your answer.

Name..... Date.....

PROBLEM 54

Creative Imagination and its Training

A high-school teacher of English was much concerned about the inability of some of her students to "use their imagination," as she put it. Thus, when she asked them to think of some object, real or imaginary, and then to describe in detail what this object looked like, there were some students who said they were unable to visualize an object in that way and consequently were unable to write the paper she had assigned.

In another high school the class chose by ballot the students who were to take various parts in their graduation exercises. The student to whom had been assigned the "Class Prophecies" seemed unable to develop any "ideas" for her paper, so that ultimately the principal had to produce the greater part of the essay.

1. Is this inability to visualize or to create imagined situations a common inability?

2. Is it due to lack of proper training?

3. What sort of training can you suggest to develop this creative imagination?

Name..... Date.....

PROBLEM 55

Imagination in Literary Production and in Life

Benjamin M., in his second year in the high school, displayed in his theme writing an unusual amount of imagination. His interest in this sort of work continued to grow, and he wrote a number of successful stories of this type that gained for him some reputation. After graduation from the high school, he went into business and saw in the future millions for himself. His first venture, however, proved a failure, as did his second and his third. He is still full of hopeful plans for the future, but his friends and business associates say that "Ben will never come down to earth."

One of Benjamin's teachers feels very strongly that the high school failed to train him as it should. She says that, instead of encouraging his exuberant fancy, the proper thing was to curb it.

Another of his teachers, however, thinks that no attempt to check his story writing would have altered his mental organization.

A third teacher thinks his failure since leaving the high school cannot be charged against the training he received there. "He simply got into the wrong line of work, and that was his mistake, not ours."

What is your opinion of these three comments?

Name..... Date.....

PROBLEM 56

The Value of Myths and Fairy Stories

Mr. Jones, after hearing his seven-year-old daughter tell the story of King Midas, visited her teacher and asked her to "stop filling the child's head with nonsense." He went on to say that there were plenty of true stories from which the child could derive more profit. "Why tell the child that there is a Santa Claus?" said he. "She will only be disillusioned later and will lose just that much confidence in her parents and teachers who gave her those untrue notions."

Henry Brown, in the third grade of another school system, was asked by his father one day what he had learned that day at school. Henry answered that he had been told about King Arthur and the Knights of the Round Table. Mr. Brown, whose hobby was to be "modern, up-to-date, and in contact with real life," was much irritated. He spent the evening holding forth to his family about the waste and backwardness of the local school system, and the following morning appeared at the office of the superintendent of schools with a demand that "such stuff" be eliminated from the course of study. Mr. Brown is a man of some influence and has gained the signatures of many parents in his neighborhood to a petition to the school board requesting the removal from the grade schools of all fairy stories, tales of imaginary heroes, and myths, and the substitution therefor of stories of men and women of to-day who are "doing real things in the world."

Comment on the attitude of Mr. Jones and Mr. Brown. What justification is there, if any, for acquainting the child with the stories of King Arthur, King Midas, and the like?

Name..... Date.....

PROBLEM 57

Superstitions

Miss F., who teaches a sixth grade, became interested in a magazine article describing some of the superstitions of primitive and semi-civilized peoples and was impressed by the difference that education had produced in the beliefs of civilized man. However, when she inquired of her pupils the following day, she was astonished to unearth in a few minutes a number of superstitions that were firmly rooted in the minds of one or more of the pupils in her own classroom. Among these beliefs were the following:

1. Unlucky things always happen three times in succession. If one tire on your auto blows out, two more will be punctured or will blow out in a short time.

2. If you start to leave your room or your house and forget something and have to go back for it, you should sit down and count ten; if you don't, you will have bad luck the rest of the day.

3. If you first see the new moon over your right shoulder, you will have good luck for that month; if you first see it over your left shoulder, you will have bad luck that month.

4. Friday is an unlucky day. You should never start a new piece of work on that day.

5. Thirteen is an unlucky number. You should especially avoid eating at a table where there are just thirteen persons.

6. It is unlucky to cut your finger nails on Sunday; if you do, something dreadful is going to happen to you.

1. Add here any similar beliefs that you have had as a child or that you still cherish.

2. Interview three or four of your friends and record any superstitions they have had or still have.

3. What is the psychological explanation for the force of superstitions of this sort?

4. What methods can you suggest that could be adopted in the school for lessening belief in superstitions?

Name..... Date.....

PROBLEM 58

Educational and Vocational Guidance

Alexander F. was the son of a farmer in a small Connecticut town. The family were in somewhat humble circumstances, and the boy left the local high school after two years of work in which he showed average ability. For six years he helped his father on the farm, when he felt that he had a call to the ministry. He thereupon borrowed money enough to take a two-year course in the academy (feeling it to be too awkward to enter the high school again at his age), and later entered college. About this time Alexander's father invented an agricultural tool that brought in a small amount of money. This money, Alexander persuaded his father to turn over to him "for the sake of the calling" to which he felt destined, and a considerable portion of it was invested in singing lessons, despite the fact that his voice was decidedly crude. Finally, after struggling through two years at college and a half year at a divinity school, Alexander decided that he was not called to the ministry after all. He went into the real estate business, to which he has since devoted himself with moderate success.

1. Do you consider this case to be an example of misdirected effort?

2. Is it probable that Alexander or the community in which he has lived has reaped a return from his flight into 'higher education' sufficient to justify the time, energy, and money invested?

3. Would it have been possible to have determined at the outset whether Alexander was warranted in resuming his academic education? How?

Name..... Date.....

PROBLEM 59

Educational Guidance

The principal of the high school in a certain Missouri city was asked whether he was frequently consulted by the parents of entering students concerning the course these students should pursue in his school. "Yes, indeed," he replied, "I'm pestered to death by them. I used to try to separate the 'sheep' from the 'goats,' but I've learned my lesson. Once I advised a woman to have her boy take the commercial course, whereupon she flew into a rage and said: 'You told Henry B.'s mother that Henry ought to take the Latin course, and I want you to understand that my boy Joe is just as smart as Henry B. If he can take Latin, my boy can, and he's going to.' So now, I tell them all to take Latin, and if they fail, it's their own lookout."

1. What do you think of the principal's attitude? Is he justified?

2. Is there any method by which a principal can give reasonably accurate advice to inquiring parents in such cases as this? What method?

Consult W. M. Proctor. *Psychological Tests and Guidance of High-School Pupils.* Jour. of Educ. Research Monographs. No. 1. 1921.

Name..... Date.....

PROBLEM 60

Educational Guidance

In a certain high school the principal and the teachers meet at stated intervals to discuss the students whose records are unsatisfactory. Will P. had done more or less unsatisfactory work during the first year and a half, so that, when he failed in three subjects and did only fair work in the fourth, his case came up for extended debate.

Mr. E., the principal, had interviewed Will and reported him as saying that while he had "let things slide" the first two years, he planned to study hard during his junior and senior years, graduate, and enter the university. Mr. E. was inclined to believe that Will's explanation was correct, that the boy had real ability, and that he had simply deliberately chosen to put off hard work until his junior year.

Miss O., his geometry teacher, disputed this idea. She believed that Will belonged to the type of boy that had no business trying to go through the high school or through college. She pointed out that his record in the grades was nothing to brag of, and felt that he talked glibly about being able to graduate from the high school just because he had managed to graduate from the grade schools.

Mrs. S., his Latin teacher, was inclined to be more charitable. Her idea was to give the boy a thorough scolding, make him realize his duty, interview his parents and get them to urge him to work, get some of the alumni who were in college to increase his interest in a college education, and then let him try for another term.

Mr. T., who taught manual training, said: "Let Will stay in school, but make him change his course. He will never succeed in an arts college. Let him transfer to the course in agriculture and farm management, go to an agriculture college if he does well in these subjects in the high school, then back to the farm where he belongs."

If you had the disposition of Will's case, what would you do, and why?

Name..... Date.....

PROBLEM 61

Educational Values of Algebra and Household Arts

Mrs. G. came to the principal of a certain high school to discuss the course of study of her daughter Mary, who was about to enter the ninth grade of this school. She complained that Mary did not concentrate her attention well, that she was not clear in her thinking. She said that she herself wanted Mary to take algebra, because she had been told by several of her friends that algebra was helpful in training the mind to think. Mary, however, was insisting that she did not want to take algebra, because she had been told that it was difficult and because she didn't intend to go to college later. Instead of algebra, she wanted to take the course in household arts. Mrs. G. said she feared that the household arts course would not give Mary sufficient mental training of the sort she needed, and begged the principal to decide which course Mary should take. The school records showed that Mary's I.Q., as determined by a Binet examination in the eighth grade, was 90.

1. If you were the principal of the school, what would be your answer and on what grounds would you justify it?

2. Would your decision differ if it was understood that the algebra could be undertaken at some subsequent year?

Consult, on Problems 61 and 62. N. J. Lennes. "A mathemtician on the present status of the formal discipline controversy." *Sch. and Soc.*, 17: Jan. 20, 1923, 63-71.

Name..... Date.....

PROBLEM 62

Educational Value of Geometry

A representative of a certain state university was visiting the high schools of that state to observe the quality of the instruction. This inspector listened in one school to a lesson in plane geometry being conducted by Miss Q. In the course of the lesson Miss Q. directed a student to erase the lettering ABC that he had placed at the angles of the triangle in his blackboard demonstration and to replace this by some other lettering. She explained to the inspector: "I don't permit them to use the lettering of the textbook, because the object of geometry, as I see it, is to train these students to think logically, and they are too much inclined to memorize the exact phrases and lettering given in their book without really seeing the logic of the proof."

The very next day the same inspector listened in another school to a lesson in plane geometry being conducted by Miss R. In the course of that lesson Miss R. corrected the lettering used by a student in his blackboard demonstration, saying: "That isn't correct. Letter your triangle ABC as it should be." She then explained to the inspector: "I insist upon absolute reproduction of the theorem as it is given in the textbook. I want these students to be trained to remember things exactly, and this course in geometry is a good place to give them that training."

Struck by this contrast in methods of teaching the same subject matter, the inspector told Professor H., of the university, what he had seen in these two schools, whereat Professor H. exclaimed: "They are both wrong. High-school geometry should neither be construed as a device for training in logical thinking nor as a device for training in exact memorizing. Its purpose is to get students to understand spatial relations. As for me, I'd feel more than satisfied if, for instance, when I told a boy that 'two straight lines parallel to the same straight line are parallel to each other,' the boy would say: 'Course they are; they just have to be; any fool could see that.'"

1. Which person, Miss Q., Miss R., or Professor H., do you think had the proper idea of the value to be gained from geometry? Or, if none of them, state your own idea of that value.

2. Would it be possible to get from the teaching of geometry any one of the results desired by these persons by varying the methods of teaching it? Illustrate.

Name..... Date.....

PROBLEM 63

Educational Value of Latin

Miss X., a teacher of high-school Latin, was discussing with her friend, Mrs. Y., the advantages of studying Latin. "Though some persons do not get as much value as do others from a course in Latin," said she, "yet all become much better students after taking it, owing to the consequent broadening of their knowledge and the training in fundamentally necessary mental processes."

"I cannot agree with you," replied Mrs. Y., "everyone knows that knowledge gained at a given time constantly decreases in quantity and serviceability if it is not brought into use in daily life. Furthermore, students who have no real interest in Latin and who feel, even while they are studying it, that it is not much connected with everyday life, tend to form sluggish habits of thought and study. To work half-heartedly at anything, however desirable it may be intrinsically, is a poor thing to do. You are worse off intellectually after such a course of study than you were when you began."

1. What justification for the opinion of Miss X. can be found in educational psychology?

2. What justification for the opinion of Mrs. Y.?

3. Which opinion seems to you the sounder?

4. List here the chief claims advanced in support of the educational value of high-school Latin.

Name..... Date.....

PROBLEM 64

The Values of Higher Education

Harry J. was a bright, competent boy, just finishing the eighth grade and ambitious to take a college-preparatory course in the high school and go on to college later. His father, though able to pay Harry's expenses through college, was a 'self-made' man who argued that what was good enough for him was good enough for his son. Some friends finally persuaded his father to talk the matter over with the superintendent of the local schools.

In the course of the discussion, Mr. J. advanced, among other contentions, the following:

"You will certainly have to admit that I have been successful, that I am respected in this community, and that I have made a good home for my wife and my boy. I did this without any education beyond the grammar school. So far as that is concerned, leave me out of account; look at Edison and Lincoln; they never went to college.

"Give any of these college graduates, five years afterward, a good examination on the stuff they studied in college and see what happens. Anyone knows that they forget nearly all the details and most of the principles they thought they had learned. That shows that they wasted their time and money. It will be better for Harry to get right down to business as soon as he gets to be 16 and can leave school."

If you were the superintendent, what reply would you make to Mr. J.?

Consult (1) Henry L. Smith, *Your Biggest Job, School or Business.* New York, 1920.
(2) "What a college education is worth," *World's Work,* vol. 34; July, 1917, 253.
(3) Percy S. Straus. "Just what is a college education worth?" *Amer. Mag.,* vol. 82, Dec., 1919, 32-33.
(4) Eugene Davenport. "What a man loses in going to college," *Sat. Eve. Post,* vol. 193, Nov. 13, 1920, 29-30.
(5) G. M. Whipple, *How to Study Effectively.* Bloomington, Ill., 1916, pp. 23-25.

Name..... Date.....

PROBLEM 65

Training in Logical Thinking

In the presidential campaign of 1920 a 'soap-box orator' was addressing a crowd in the streets of H. In the course of his harangue he said: "Four years ago this street was hung with Democratic banners inscribed 'Vote for Wilson and the full dinner pail.' Wilson was elected, but have your dinner pails been full? What about the cost of living to-day? What are you paying for bread and butter? Will you return the Democrats to office? Never, if you can think straight." These remarks were greeted with rounds of applause, notwithstanding the fact that there could hardly be a man among his hearers who did not understand that the economic disturbances of the Great War rather than the acts of the Democratic party had caused the rise in the cost of living.

1. Is it within the province of the public schools to train future citizens to reason clearly about such important issues? If so, what subjects or what methods are available for such training?

2. Would it be possible or worth while to introduce into the upper grades of the grammar school a type of work that might be thought of as simple exercises in logical thinking—as, for instance, by presenting to the pupils a series of arguments, some valid, some fallacious, to be studied with respect to the conclusions that could, or could not, be drawn from the facts presented?

Consult S. C. Parker. *Methods of Teaching in High Schools.* Ch. ix.

Name_____ Date_____

PROBLEM 66

Training in Concentration of Attention

In a book entitled *Methods of Mind-Training*, published in 1896, Catherine Aiken describes a series of exercises (columns of figures, groups of dots to be counted, important dates, sets of drawings, etc.) to be placed on a revolving blackboard, which is then whirled about before the pupils in such a way as to expose the material for a few seconds only. These exercises are strongly urged as a means of developing concentrated attention, quick and accurate observation, and of accelerating the whole process of learning. Miss Aiken reports very wonderful results from the use of such exercises for five or ten minutes daily.

1. Is there psychological warrant for the use of such exercises as a means of developing attention and observation?

2. Would you advocate the introduction of such exercises as a stock feature of school training? If not, why not?

3. What other methods can you suggest for systematic training of the capacity to observe and report?

Consult (1) K. M. Dallenbach, "The effect of practice upon visual apprehension in school children," *J. Educ. Psych.*, 5: 1914, 321-334, 387-404.
(2) W. S. Foster, "The effect of practise upon visualizing and upon the reproduction of visual impressions," *J. Educ. Psych.*, 2: 1911, 11-22.
(3) G. M. Whipple, "The effect of practise upon the range of visual attention and of visual apprehension," *J. Educ. Psych.*, 1: 1910, 249-262.
(4) S. S. Colvin, *The Learning Process*, Ch. xii.

Name..... Date.....

PROBLEM 67

Beginning College Subjects in the High School

At D. University a discussion arose among a group of the instructors concerning requirements for admission. In the course of this discussion the professor of physics declared: "If I had my way, I would order that no student in the high school who expected to take work in physics in this university should take any work in physics in the high school." A well-known member of the French department echoed this declaration, saying: "It is even more true in our department. College students who have never studied French in the high school, as a group invariably do better work in college French than the group that entered the university with one or two years' secondary-school French."

1. Do you know of any evidence to prove the truth of these assertions?

2. Do you think they are true? If so, what is the explanation?

3. Granted their truth, are there any other subjects in which it would be better for the prospective college student to defer his beginning work until he entered college?

Name..... Date.....

PROBLEM 68

Concentration of Courses

In many university summer schools courses are offered in certain subjects, like beginning French, in which, by reciting twice a day and by permitting the students to elect no other courses, a whole semester's work is done in a six or eight weeks' session.

In a college which granted practically absolute freedom of election, a certain student took all of his work on a somewhat similar intensive plan. In his freshman year, he elected nothing but courses in rhetoric and English literature; in his sophomore year he did intensive work in mathematics; in his junior year he took all the sociology and political science permitted him; in his senior the greater part of his work was in the field of history.

1. Assuming that the courses chosen are satisfactory as courses, what arguments might nevertheless be adduced against such a policy of intensive concentration?

2. What arguments might be adduced in its favor?

3. Which arguments are, in your opinion, the weightier?

Name..... Date.....

PROBLEM 69

Selecting Material for a History Course

Superintendent A., who teaches American history and civics to the seniors of the high school under his charge, begins these courses by an elaborate series of examinations that take a week to administer and that cover all the topics in these courses. After he has scored the papers, he proceeds to make up the course of study for the classes examined in such a way that he treats during the remainder of the year only those topics about which the students know little or nothing (as indicated by the examinations).

1. Is this method psychologically sound or should he cover systematically the entire field, even if he proceeds hurriedly over the topics that are already reasonably well known?

2. If the method is sound, are there any other subjects in which the same method might presumably be followed? What ones?

Name..... Date.....

PROBLEM 70

Arrangement of a Daily Program

Two elementary-school teachers were comparing notes concerning their daily programs. In order to increase the efficiency of her pupils Miss T. had alternated 'drill' subjects, like spelling, writing, and arithmetic, with 'content' subjects, like geography, reading, and nature study.

Miss V., in order to secure the same end, had placed all her 'drill' subjects in the morning and all her 'content' subjects in the afternoon (with the exception of one that had to be placed at the end of the morning program.)

1. Which of these arrangements is the better, and why?

2. Do pupils do better work with difficult subjects in the morning?

Name..... Date.....

PROBLEM 71

Developing Applications of Textbook Material

In the Report of the Survey of the Public Schools of Portland appears the statement: "No connection was made or suggested between the book statements and the pupils' own immediate observations of geographic phenomena. Not the slightest stimulus was given to observe, to think about, and to interpret the geographic phenomena in which Portland and vicinity surpassingly abound. Even an exercise in 'home geography' was conducted entirely from the book."

In a high-school class at W. the teacher of the class in general science gave a successful demonstration of the principle of the barometer by inverting a glass tube of mercury over an open vessel of mercury. The only discussion of the experiment consisted in eliciting an answer to the question: "Why doesn't the mercury run out?" When an inspector asked: "Why did you say nothing about the real barometer hanging on your wall or its use in measuring altitude or predicting the weather?" the teacher replied: "In the first place, there isn't time to get through the course of study if I try to follow up everything like that. In the second place, all the students know those things anyway."

A sixth-grade teacher was hearing a lesson in physiology and asked a pupil several questions about the heart—its location, size, function, etc. When this pupil, after answering the questions correctly, began to tell of having watched her mother remove the heart from a chicken that was being prepared for cooking, the teacher stopped her, saying: "That is probably very interesting, Mabel, but we haven't time for it now." On being asked later by a supervisor why she interrupted Mabel, this teacher said: "The pupils in this class are just full of stories about things we are studying, but if I let them tell them, I should never be able to get through the lessons that we have to cover this term."

1. Comment on the psychological principles involved in these three illustrations.

2. What general rules can you formulate to indicate under what conditions and to what extent a teacher is justified in supplementing the textbook by discussions, illustrations, experiments, and sample applications?

Name..... Date.....

PROBLEM 72

Direct Observation versus Verbal Description

The Superintendent of schools in the City of G. has been active in working out schemes whereby groups of pupils in his elementary schools shall be given an opportunity to visit the country in connection with their nature study work. He is also advocating a similar arrangement whereby groups of rural school children shall visit his city and observe the operation of machines in large factories and the general industrial and commercial activities there exhibited. Many of the parents and some of the teachers are raising objections to these schemes on the ground that they are unnecessary and too expensive of time and money.

An instructor in S. College wanted to take his class in sociology to visit an institution for the care of the feeble-minded and a boys' reformatory in a city some 20 miles distant. The head of his department vetoed the proposal on the ground that such institutions were perfectly well described in the textbook or, if not, the instructor could tell his students what they needed to know in a tenth of the time the trip would take and with no expenses to them and no disruption of their college work.

1. What are the psychological advantages of first-hand visitation as compared with verbal description in such situations as those here described?

2. Under what conditions ought the textbook and the instructor to be supplemented by visitation and observation?

3. Under what conditions is visitation and observation unnecessary or inadvisable?

4. Describe instances in your own education in which the gain from direct observation has more than compensated for the expenditure of time and money.

Name..... Date.....

PROBLEM 73

Concrete Basis in Early Number Work

Miss T. and Mrs. R., who have charge of elementary supervision in neighboring cities, were comparing notes upon the methods used in these two cities in early number work.

Miss T.'s policy was to make rather extensive use of concrete objects, such as blocks, beads, sticks, etc. Thus her pupils learned to count, to add, to subtract, and to multiply by seeing and actually handling objects. "Two blocks and two blocks make four blocks," etc. She claimed that this policy was fully in accord with modern psychology.

Mrs. R.'s policy was to limit the seeing and handling of actual objects very decidedly, almost to discard it altogether. In the main her pupils learned the fundamental numerical relations directly, as so many verbal statements. "Two and two are four." She also contended that her policy was fully in accord with modern psychology, and closed the conversation by saying: "I'll bet dollars to doughnuts that there are high-school students in your system who still count on their fingers."

1. What psychological principles could Miss T. adduce in support of her policy?

2. What psychological principles could Mrs. R. adduce in support of her policy?

3. Which policy is the sound one, and why?

Name..... Date.....

PROBLEM 74

Authoritative Instruction

"He settles things, and you can put them down in your notebook. I dislike those instructors that come to no one conclusion, but only present various opinions about a subject," said a college student in praise of a certain professor.

"When I left the normal school," said another student, "I had definitely in mind what I regarded as established ideas as to what to teach and how to teach it, but since I have been studying in the university, so many new things have been brought to light about education, and such forceful arguments advanced for different ways of doing things that I feel somewhat lost, and I sometimes wonder whether it wouldn't have been better for me not to have taken these university courses."

1. What are the advantages and the disadvantages of the two methods of instruction that are contrasted in these statements?

2. Under what conditions are definite, categorical statements, without consideration of qualifying factors, warranted in teaching? That is, is a teacher sometimes warranted in saying nothing about the arguments for the other side when giving instruction about a controversial matter?

Name..... Date.....

PROBLEM 75

The Limitation of Class Discussion

In a certain state university there are several sections in the class in elementary sociology. The students include sophomores, juniors, and some seniors.

Instructor A., who teaches some of these sections, conducts práctically all his work by means of class discussions. He encourages the students to express their opinions about sociological problems, even if they have not read the assignments that bear on these problems, because he feels that the experience of the students should be of value and their active cooperation should be enlisted.

Professor B., an eminent authority and the author of various textbooks in sociology, who has charge of the other sections in the same course, does not encourage free discussions by the students. He declares that the student has no adequate background either in theory or practice, that his experience is worth practically nothing. He insists, accordingly, that his students be able to quote from authorities in sociology, and subordinate the expression of their own notions to learning what experts have said about the problems under treatment in the course.

1. Is the method used by Instructor A. or the method used by Professor B. the better? Justify your answer.

2. In general, what conditions should be observed in order to make the conversational method effective in high-school teaching?

Consult S. C. Parker. *Methods of Teaching in High Schools.* Boston, 1920, ch. xviii.

Name..... Date.....

PROBLEM 76

Freedom versus Prescription in Education

An educational periodical states that, convinced that there is too much discipline and too much lockstep in the schools, E. F. O'Neill has opened a "school without a time-table" at Kearsley, on the outskirts of Manchester, England. In this school the pupils are given full liberty to choose their own teachers. They work when they please, as they please, and at what they please. No pupil is stopped in the middle of a task, nor is he forced to take up one that does not appeal to him.

1. What psychological arguments could be advanced in support of such a plan of education?

2. What psychological arguments could be advanced against it?

3. Can you formulate any principles that would govern the proper balance between the two extremes of giving the pupil full freedom to pursue his own inclinations and of prescribing rigidly the last detail of his school activities?

Consult (1) Charles De Garmo. *Interest and Education.* New York, 1902. Especially chs. iii and iv.
(2) F. A. Fitzpatrick. "Reflections on an iconoclast." *Educ. Rev.*, 29: Feb., 1905, 151-162.
(3) B. Wendell. "Our national superstition." *N. Amer. Rev.*, 179: Sept. 1904, 388-401.

Name..... Date.....

PROBLEM 77

Methods of Conducting History Recitations

A high-school inspector who had been interested in observing freshman classes in European history in various schools, reported these four methods of conducting recitations in that subject in four different schools:

Teacher A. spent nearly all of the period in having the pupils read the textbook aloud, and asking at the end of each paragraph: "Is there anyone who does not understand that paragraph?" Beyond occasional questions about pronunciation, there was little done outside this reading.

Teacher B. opened the hour by asking questions for about ten minutes on the assignment of the previous day. During the remainder of the period she lectured on the topics assigned for the day. She was a well-informed college graduate, and her lecture was not without interest.

Teacher C. kept her textbook open before her, and directed all pupils to close their books. She asked questions rapidly on the details of the text, laying considerable emphasis upon the getting of answers in strict accord with the statements in the text.

Teacher D. had assigned work in the textbook, but had also delegated various students to look up different topics in books of reference. The class period was largely taken up by reports of these students on what they had found in these reference books. There was little discussion and no taking of notes.

1. State the merits and demerits, psychologically considered, of the method pursued by each of these four teachers.

2. Can you suggest a better method of procedure than any of these four?

Consult Geo. H. Betts. *The Recitation.* Boston, 1910.

Name..... Date.....

PROBLEM 78

Marking Systems

The members of a college class in education were asked to compile a list of the various marking systems that they had met in their school careers. The following were reported:

In School A. all marks (whether for recitations, short written exercises or final examinations) were on a scale of 100 points, in units of one point, with 70 as the pass mark.

In School B. the same system prevailed, except that the pass mark was 60.

In School C. all marks were on a scale of 10, with units of half a point, (*e.g.*, 7, 7.5, 8, etc.) with 7 as the pass mark.

In School D. all marks were reported on a letter system of six units with the interpretations: A, superior; B, very good; C, good; D, fair; E, poor; and F, failed. A mark of E or better was necessary to pass a given subject, but if all marks were E's, the student had to repeat the term's work.

In School E. there were five letter grades with the interpretations: A, very superior; B, superior; C, average; D, inferior; and E, very inferior (failure). These five marks were assigned by the use of a curve of distribution; *i.e.*, after the work for the term had been appraised in some way—most of the teachers used a regulation 100 unit scale for this—the pupils in each class were arranged in order of excellence; then the top 10 percent were given A, the next 20 percent B; the middle 40 percent C; the next 20 percent D and the lowest 10 percent E. While some latitude was permitted in these assignments, it was expected that in the long run the distribution of marks would approximate the percentages just cited.

In School F. there were three marks only; "very satisfactory," "satisfactory," "unsatisfactory." There was no attempt to control the percentage of each that was given to the pupils.

In School G. students taking certain advanced courses were recorded only as "passed" or "not passed."

In School H. the pupils had been divided into three sections on the basis of their native ability. There had been much discussion as to the proper method of marking these sections. Ought it to be possible, for instance, for the best pupil in the Z, or dull, section to get a higher mark than the poorest pupil in the X, or bright, section? It was finally decided to use five letters (like School E above) within each section, but to add a small x, y, or z after it to record the group within which the mark was earned; thus, "Ax" meant "very superior work in bright section;" "Cz" meant "average work in dull section," etc.

In School I. the pupils' report cards showed marks of 1, 2, 3, 4, or 5 points on "industry," "cooperation," and "deportment." In place of marks on the school subjects there was a chart showing the standard performance expected for each grade in each subject (like spelling, addition, subtraction, etc.) and showing in comparison the performance actually attained by the pupils in special educational tests.

1. Add here an account of any other marking system you have seen in operation.

2. State the merits and demerits of each of the systems of marking here described and in conclusion outline what you regard as the best system.

Consult D. Starch. *Educational Psychology.* New York, 1921. Ch. xxii.

(Use the reverse side of the page.)

Name..... Date.....

PROBLEM 79

Types of Examinations

Among the various types of examinations that are in use there may be mentioned (1) the 'essay' type, (2) the 'true-false' type, (3) the 'best-answer' type, (4) the 'completion' type.

In illustration, suppose that the examination dealt with the voyage of Columbus in 1492. The four types might then be indicated as follows:

1. The Essay Type.

"Write an account of the discovery of America."

"Tell what you know about the voyage of Columbus."

2. The True-False Type.

"Put a plus sign in the parenthesis if the statement is true; a minus sign if the statement is false."

( ) Columbus discovered America in 1493.

( ) Columbus made his voyage in three small vessels.

(And so on with perhaps a dozen such statements.)

3. The Best-Answer Type.

"Underline the one word or phrase that makes the statement true.

Columbus discovered America in 1392 1450 1492 1620 1776

The number of vessels Columbus had was one two three four

(And so on with perhaps a dozen such statements.)

4. The Completion Type.

"Write just one word in the space above each dotted line."

Columbus sailed from.....with..... small vessels and finally set foot on shore in the year....., etc.

1. What are the advantages and what the disadvantages of each of these four types of examinations?

2. Suggest additional types or desirable modifications of these four.

Consult (1) W. A. McCall. *How to Measure in Education.* New York, 1922, pp. 119-133.
(2) W. S. Monroe. *Written Examinations and Their Improvement.* Univ. of Illinois Bulletin, Vol. xx, No. 7, 1922.

Name..... Date.....

PROBLEM 80

Methods of Conducting Final Examinations

At a conference of high-school principals a discussion arose concerning the best way to conduct formal term examinations. This discussion revealed great diversity of practice and of opinion. Among others, the following plans were described:

In A. no 'finals' were held at all. There were somewhat frequent written exercises and these, together with the record of daily recitations, formed the basis of the students' marks. One reason advocated for this plan was that it removed the pressure upon the students that led to dishonesty in important final examinations.

In B. there were final examinations that counted toward the students' marks, but it was assumed by the teachers that if students were not spied upon, they would be too honorable to cheat. Accordingly, after the questions were given out, the teachers made no attempt to watch the students; they were free to sit where they chose and to keep books and papers on their desk if they desired.

In C. the final examinations were operated upon an 'honor system' to the extent that there was no supervision but each student was required to place at the end of his examination book and over his signature, the statement: "I have neither given nor received aid in this examination."

In D., following general discussion among the students, who objected to being 'spied upon,' an 'honor system' was adopted according to which each student agreed that he would not give or receive aid in the examinations and further agreed that he would report any other student whom he saw giving or receiving aid.

In E., in an effort to stamp out cheating in examinations, which the principal declared was wide-spread and "the curse of the American high school," the most rigorous effort was made to render cheating impossible. The students were seated in alternate seats; all textbooks were collected and placed on the teacher's desk; every scrap of paper was removed from each desk; the teacher walked up and down the aisles constantly to keep the students under surveillance.

1. What are the merits or demerits of each of these five plans?

2. What plan or plans would you follow and why?

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